# Jacek Radajewski Student number: 43612772 BIOL3014 – Advanced Bioinformatics Practical 2

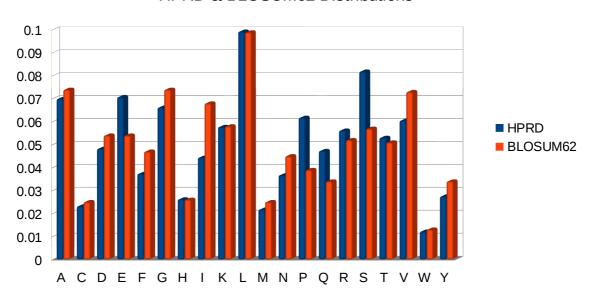
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# **Exercise 1B**

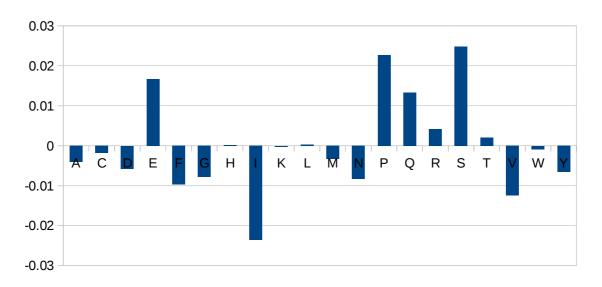
HPRD background distribution has been created from the set of sequences found the HPRD.fa FASTA file. Distribution was created by the get\_distrib\_from\_fasta function shown in code listing below.

First graph shows both, HPRD and BLOSUM62 derived distributions. L (Leucine) is the most frequent amino acid in both distributions with the frequency of 0.1 and W (Tryptophan) is the least frequent amino acid with a frequency of about 0.01.



HPRD & BLOSUM62 Distributions

The following bar graph shows deltas between the HPRD and BLOSUM62 distributions with positive value representing higher frequencies in HPRD and negative values representing higher frequencies in the BLOSUM62 background distributions.



BLOSUM62 & HPRD Background Distribution Deltas

#### Code

```
Created on 05/08/2014
@author: jacekrad
from sequence import *
from prob import *
from symbol import *
from webservice import *
from sys import stderr
blosum62 background = readDistrib("blosum62.distrib")
def get_distrib_from_fasta(fasta filename):
    This function creates a distribution from a set sequences
    read from a FASTA file. All sequences are read and every
    residue is used to construct the distribution. This
    function assumes that the FASTA file contains protein alphabet
    sequence. The function returns a <u>Distrib</u> object containing the
    generated distribution.
    protein counts = {}
    # initilise the dictionary with zeros
    for residue in Protein Alphabet.symbols:
        protein_counts[residue] = 0
    sequences = readFastaFile(fasta filename)
    for sequence in sequences:
        for letter in sequence:
            protein counts[letter] += 1
    return Distrib(Protein_Alphabet, protein_counts)
hprd_background = get_distrib_from_fasta("HPRD.fa")
hprd background.writeDistrib("HPRD.distrib")
print hprd background
print blosum62_background
# compare the two distributions by calculating deltas for each amino acid
for amino acid in hprd background.alpha:
    delta = hprd_background[amino_acid] - blosum62_background[amino_acid]
    sys.stderr.write(amino_acid + "," + str(delta) + "\n")
```

### Raw Results

AA	HPRD	BLOSUM62	DELTA
Α	0.0698457839	0.0738522954	-0.0040065115
С	0.0231226168	0.0249500998	-0.001827483
D	0.0481476988	0.0538922156	-0.0057445168
Е	0.070644439	0.0538922156	0.0167522234
F	0.0372439945	0.0469061876	-0.0096621931
G	0.0660838698	0.0738522954	-0.0077684256
Н	0.0261162961	0.0259481038	0.0001681923
I	0.044277412	0.0678642715	-0.0235868595
K	0.0576285349	0.0578842315	-0.0002556966
L	0.0991363806	0.0988023952	0.0003339854
M	0.0216587524	0.0249500998	-0.0032913474
Ν	0.0366184744	0.0449101796	-0.0082917052
Р	0.0616506862	0.0389221557	0.0227285305
Q	0.0471915942	0.0339321357	0.0132594584
R	0.0560535647	0.0518962076	0.0041573571
S	0.0817464702	0.0568862275	0.0248602426
Т	0.0529277466	0.0508982036	0.002029543
V	0.0604048745	0.0728542914	-0.0124494169
W	0.0120893881	0.0129740519	-0.0008846638
Υ	0.0274114222	0.0339321357	-0.0065207135

# **Execution Output**



# **Exercise 1C**

HTH protein chosen was P56179 (http://www.uniprot.org/uniprot/P56179) whose sequence is:

MSHSQHSPYLQSYHNSSAAAQTRGDDTDQQKTTVIENGEIRFNGKGKKIRKPRTIYSSLQ LQALNHRFQQTQYLALPERAELAASLGLTQTQVKIWFQNKRSKFKKLLKQGSNPHESDPL QGSAALSPRSPALPPVWDVSASAKGVSMPPNSYMPGYSHWYSSPHQDTMQRPQMM

Homeobox protein DLX-6 is is located between positions 1 and 175 and the DNA binding Homeobox is between positions 49 and 108.

The homeobox is highlighted in the jpred output below with alpha helix predictions shown as well.

## **Exercise 1D**

Document code is shown below.

```
Created on 06/08/2014
@author: jacekrad
from gibbs import *
from sequence import *
seqs = readFastaFile("hth 40.fa", Protein Alphabet)
W = 10 # the width of the motif sought
# create a GibbsMotif object from a list of sequences
# and of length W
g = GibbsMotif(seqs, W)
# execute the core <a>Gibbs</a> Sampling algorithm to discover
# the motif
q = g.discover()
# get the probability distribution for the background used
# in the discovery calculated above
p = q.getBackground()
# getAlignments is called and alignment for sequences seq
# is calculated from the foreground q and background p
# the resulting alignment is assigned to a
a = getAlignment(seqs, q, p)
k = 0
for seq in seqs:
    print "%s \ t%s" % (seq.name, seq[a[k]:a[k]+W])
    k += 1
```

### **Exercise 1E**

#### Code

# Small change to gibbs.py

```
#print "LL @ %5d=\t%5.2f" % (round, LL)

if LL > self.maxLL:
    self.maxLL = LL
```

### exercise1f.py

```
Created on 07/08/2014
@author: jacekrad
from gibbs import *
from sequence import *
import sys
seqs = readFastaFile("hth 40.fa", Protein Alphabet)
width values = [10, 24, 30]
# list of the files where we dump the results
# these will go to <a href="stderr">stderr</a> for <a href="logo">logo</a> post processing
alignment filenames = []
# maximum values for saving
maxLL = 0.0
max_p = None
max_q = None
p_filename = None
q filename = None
for W in width_values:
    for i in range(1,4): # create 3 sets of results
        g = GibbsMotif(seqs, W)
        q = q.discover()
        p = q.getBackground()
        a = getAlignment(seqs, q, p)
        k = 0
        results filename = "ex1e-W" + str(W) + "-iteration" + str(i) +
".<u>aln</u>"
        if q.maxLL > maxLL:
            maxLL = g.maxLL
            max_p = p
            max_q = q
            p_{filename} = "ex1e-W" + str(W) + "-iteration" + str(i) + "-p-
max.distrib'
            q_filename = "ex1e-W" + str(W) + "-iteration" + str(i) + "-q-
max.distrib"
            print "New maxLL distribution is ", q_filename
        sys.stderr.write(results filename + "\n")
        results file = open(results filename, 'w')
```

#### **BASH**

```
#!/bin/bash

python exercisele.py 2>alignment_filenames.txt

for alignment_filename in `cat alignment_filenames.txt`; do
    export logo_filename=`echo ${alignment_filename} | cut -f 1 -d "."`.svg
    echo "generating ${logo_filename}"
    weblogo --format=svg < ${alignment_filename} > ${logo_filename}

done
```

#### **Execution**

```
Terminal
                                                                            JL 30
File Edit View Search Terminal Help
jacekrad@z400 ~/var/github-sem2/biol3014/prac02 $ time ./ex1e-create-logos.sh
New maxLL distribution is exle-W10-iteration1-q-max.distrib
New maxLL distribution is ex1e-W10-iteration2-q-max.distrib
New maxLL distribution is ex1e-W24-iteration1-q-max.distrib
New maxLL distribution is exle-W30-iteration1-q-max.distrib
New maxLL distribution is ex1e-W30-iteration2-q-max.distrib
Writing best distributions to exle-W30-iteration2-p-max.distrib and exle-W30-
iteration2-q-max.distrib
generating ex1e-W10-iteration1.svg
generating ex1e-W10-iteration2.svg
generating ex1e-W10-iteration3.svg
generating ex1e-W24-iteration1.svg
generating ex1e-W24-iteration2.svg
generating ex1e-W24-iteration3.svg
generating ex1e-W30-iteration1.svg
generating ex1e-W30-iteration2.svg
generating ex1e-W30-iteration3.svg
        9m40.248s
real
user
       9m38.267s
sys
       0m1.474s
jacekrad@z400 ~/var/github-sem2/biol3014/prac02 $
```

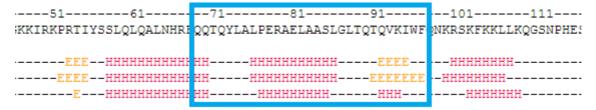
# Logos

Inspecting motifs of different widths we can see a pattern of highly conserved region WFQNRR (and slightly less conserved surrounding resides) appearing in most logos. The exceptions are two of the W=10 and one of the W=30 logos. Inspecting the original amino acid sequence we can find this region starting at position 96 which is between the second and third alpha helices.

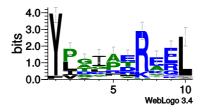
Furthermore, even for the logos of the same width motif is shifted, that starts and ends in different positions.

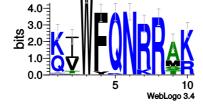
For the short width of W=10 two of the three motifs do not show the highly conserved region WFQNRR. The first of the logos does not seem to overlap either of the other two and there is an overlap of three positions between logo 2 and logo 3.

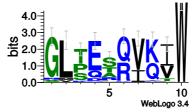
When W=30, two of the three logos provide a significant overlap of 28 positions. The overlap is from position 69 to 97 of the original sequence and covers 2 helices as highlighted in a blue box below.



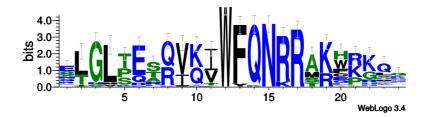
#### W=10

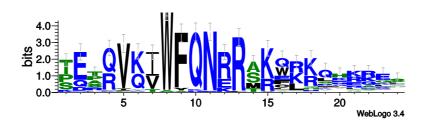


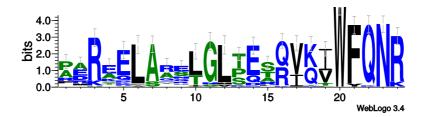




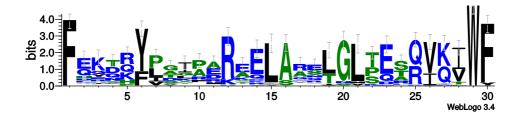
#### W = 24

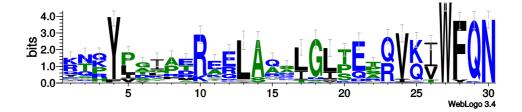


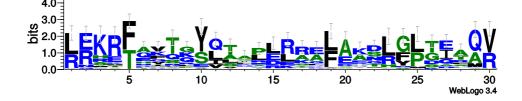




W=30







# **Exercise 1f**

To construct the two PWMs I have used the foreground saved in previous questions. For the backgrounds I've used the HPRD background from question 1B and background saved in last (1e).

I have had some problems with this questions as both of my PWMs matched hit every single one of the 14989 sequences searched. I then modified the threshold of the search but would have the value too high and no sequences were returned, or the value would be too low and all of the sequences would return hits. For pwm1 I found a threshold value of 4.59231187104470925 which returned most but not all sequences. Because of the time taken to experiment with this I didn't spend as much time on working out the best threshold for pwm2. My final run has abandoned this approach all together and printed

There are two possibilities here:

- 1. There is an error in either my approach or the code or both.
- 2. This motif is present in all proteins.

Because of the number of proteins found trying to get the report (getGOReport) would run for hours and not complete. Finally I left it running overnight producing a long list of results. Note, that the run was generated from one PWM only (pwm1) in order to save time.

I chose Q99440 as one of the proteins and checked in in uniprot (<a href="http://www.uniprot.org/uniprot/Q99440">http://www.uniprot.org/uniprot/Q99440</a>). It is unlikely to a HTH motif as there seems to be a problem with the number of results my code has returned.

#### Code

```
Created on 06/08/2014
@author: s4361277
from sequence import *
from reportlab.lib.set ops import intersect
foreground = readDistribs("ex1e-W30-iteration2-p-max.distrib")
gle background = readDistribs("ex1e-W30-iteration2-g-max.distrib")
hprd background = readDistribs("HPRD.distrib")
print type(foreground), type(gle background), type(hprd background)
# create two Position Wighted Matrices. First used the background
# saved in question le and the second PWM is created using the
# background from question 1b, ie from the HPRD sequence data
pwm1 = PWM(foreground, qle_background[0])
pwm2 = PWM(foreground, hprd background[0])
print pwm1, pwm2
ids1 = []
ids2 = []
hprd sequences = readFastaFile('HPRD.fa', Protein Alphabet)
```

```
hth sequences = readFastaFile('hth 40.fa', Protein Alphabet)
hth ids = [seq.name for seq in hth sequences]
# these are the sequences we are going to search. These are the
# HPRD sequences that do not have an entry in our hth 40.fa FASTA file
search sequences = [seq for seq in hprd sequences if not(seq.name in
hth ids)]
print "will search", len(search sequences), "sequences out of a total
    len(hprd sequences), "entries found."
# because each sequence is a match we'll count the total number of hits
# for the two different sequences
pwm1_hit_count = 0
pwm2_hit_count = 0
pwm1_theshhold = 4.5
count = 0
for sequence in search_sequences:
    hits1 = pwm1.search(sequence) # search using first PWM
    hits2 = pwm2.search(sequence) # search using second PWM
    pwm1 hit count += len(hits1)
    pwm2 hit count += len(hits2)
    if len(hits1) > 0:
        #print "%s \t%d \t%s \t%5.3f" % (sequence.name, hits1[0][0],
hits1[0][1], hits1[0][2])
        ids1.append(sequence.name)
    #if len(hits2) > 0:
         ids2.append(sequence.name)
#print "number of sequences matched by pwm1 and pwm2", len(ids1),
len(ids2), len(intersect(ids1, ids2))
#print "total hits by pwm1 and pwm2", pwm1 hit count, pwm2 hit count
print ids1
print "getting report"
report = getGOReport(ids1)
print "report rows"
for row in report:
    print "%s \t%d \t%s" % row
```

# **Output**

#### **PWMs**

```
+4.59231187104470972571
Α
C
    -0.75522523905631300245
D
   +3.17498245182345906201
    -0.26582861907593180462
   +0.02798567463261713434
G
   +4.30332968772469914853
Н
   +0.02798567463261713434
    -1.19336262521392066915
Ι
K
   -1.92746413313828157676
   +4.20981381202821491883
М
   +2.44227746773204046349
```

```
N
   +2.70248809456029182030
Ρ
   +4.56519783042241389381
0
    -0.80902707783850980050
R
    -1.30051692762927095792
S
   +4.36641541115966269615
Т
   +3.53386173184732665931
٧
   +3.24396640703866045996
W
   +2.36507151000548576647
    -1.70774517158982774845
```

```
Α
   +0.56916260386476069666
C
    -0.62838704319051064129
D
    -0.47615359737981943766
Ε
    -0.18946438342253510423
F
    -0.32183919435603314252
G
   +0.33554657897056489047
Н
   +0.03310351034586316021
Ι
    -1.04711236206315128072
K
    -0.36018379353077178973
    -0.16353528145197879229
М
    -0.41000005340910816720
    -0.67490827691591093185
P
   +0.66685193165766087908
0
   +0.17501260361618561912
R
   +0.29447381337806322055
S
   +0.18594208355721397741
Т
    -0.21192721623968954758
٧
    -0.63396192461865674694
W
   +0.09591911309984096912
    -0.40109685828777197347
```

# GO report

I have deliberately included all of the 14285 terms returned by the report to illustrate the problems I've been having with this question. Because of the number of results it was impossible to predict the function.

```
G0:0016020
             6197
                     membrane
G0:0005515
                     protein binding
             5534
G0:0005634
             5019
                     nucleus
G0:0005737
             4988
                     cytoplasm
                     integral component of membrane
             4000
G0:0016021
G0:0005886
             3579
                     plasma membrane
G0:0046872
             2975
                     metal ion binding
G0:0005829
             2387
                     cytosol
                     extracellular vesicular exosome regulation of transcription, DNA-templated
G0:0070062
             2346
             2020
G0:0006355
                     transcription, DNA-templated
G0:0006351
             1923
G0:0007165
             1848
                      signal transduction
G0:0003677
             1842
                     DNA binding
G0:0000166
             1707
                     nucleotide binding
G0:0005576
             1641
                     extracellular region
                     nucleolus
G0:0005730
             1538
GO:0006810
             1537
                     transport
G0:0016787
             1322
                     hydrolase activity
G0:0044281
             1309
                     small molecule <u>metabolic</u> process
G0:0016740
            1272
                     <u>transferase</u> activity
```

```
G0:0005739
             1264
                     <u>mitochondrion</u>
G0:0005524
             1262
                     ATP binding
G0:0005654
             1057
                     nucleoplasm
G0:0005615
             1047
                     <u>extracellular</u> space
G0:0008270
             1044
                     zinc ion binding
GO:0003676
             1023
                     nucleic acid binding
                     integral component of plasma membrane
G0:0005887
             1010
                     endoplasmic reticulum
poly(A) RNA binding
G0:0005783
             1001
G0:0044822
             971
G0:0004871
             947
                     signal <u>transducer</u> activity
G0:0005622
             945
                     <u>intracellular</u>
G0:0005794
             920
                     <u>Golgi</u> apparatus
G0:0005856
             916
                     <u>cytoskeleton</u>
G0:0007275
             893
                     multicellular <u>organismal</u> development
G0:0007186
             865
                     G-protein coupled receptor signaling pathway
GO:0003700
                     sequence-specific DNA binding transcription factor activity
             835
G0:0008152
             781
                     metabolic process
G0:0045944
             743
                     positive regulation of transcription from RNA polymerase II promoter
GO:0004930
             741
                     G-protein coupled receptor activity
G0:0006915
             672
                     apoptotic process
G0:0005789
             657
                     endoplasmic reticulum membrane
G0:0003723
             642
                     RNA binding
G0:0010467
             642
                     gene expression
G0:0030154
             599
                     cell differentiation
G0:0045087
             597
                     innate immune response
G0:0016310
             591
                     phosphorylation
G0:0016301
             590
                     kinase activity
GO:0055085
             585
                     <u>transmembrane</u> transport
G0:0005509
             585
                     calcium ion binding
G0:0042803
             580
                     protein <u>homodimerization</u> activity
G0:0003824
             578
                     catalytic activity
G0:0055114
             574
                     oxidation-reduction process
                     protein phosphorylation
G0:0006468
             571
                     cell adhesion
GO:0007155
             565
G0:0030054
             561
                     cell junction
                     ion transport
G0:0006811
             544
G0:0016032
             539
                     viral process
G0:0015031
             536
                     protein transport
G0:0007049
             533
                     cell cycle
GO:0003674
             528
                     molecular_function
G0:0000122
             521
                     negative regulation of transcription from RNA polymerase II promoter
                     positive regulation of transcription, DNA-templated
GO: 0045893
             520
G0:0006508
             515
                     proteolysis
G0:0050896
             500
                     response to stimulus
G0:0016772
             496
                     transferase activity, transferring phosphorus-containing groups
G0:0004672
             482
                     protein <u>kinase</u> activity
G0:0044267
             481
                     cellular protein <u>metabolic</u> process
G0:0016491
             473
                     <u>oxidoreductase</u> activity
G0:0042802
             471
                     identical protein binding
G0:0043565
             469
                     sequence-specific DNA binding
G0:0048471
             469
                     perinuclear region of cytoplasm
G0:0042995
             468
                     cell projection
G0:0008150
             466
                     biological_process
G0:0043066
             459
                     negative regulation of apoptotic process
G0:0043231
             451
                     <u>intracellular</u> membrane-bounded <u>organelle</u>
G0:0007596
             449
                     blood coagulation
G0:0045892
             443
                     negative regulation of transcription, DNA-templated
GO:0009986
             435
                     cell surface
G0:0031410
             435
                     cytoplasmic vesicle
GO:0000139
             435
                     Golgi membrane
GO:0005768
             430
                     endosome
G0:0008233
             428
                     peptidase activity
                     nervous system development
G0:0007399
             427
G0:0008284
                     positive regulation of cell proliferation
             416
G0:0006366
             410
                     transcription from RNA <u>polymerase</u> II promoter
G0:0006629
             401
                     <u>lipid</u> <u>metabolic</u> process
             385
G0:0016567
                     protein <u>ubiquitination</u>
G0:0007268
             384
                     <u>synaptic</u> transmission
G0:0004674
             376
                     protein <u>serine/threonine</u> <u>kinase</u> activity
G0:0008285
             376
                     negative regulation of cell proliferation
G0:0007608
             367
                     sensory perception of smell
G0:0000278
             366
                     mitotic cell cycle
G0:0035556
             360
                     <u>intracellular</u> signal <u>transduction</u>
G0:0043234
             358
                     protein complex
GO:0045202
             357
                     synapse
```

```
G0:0005975
             356
                     carbohydrate <u>metabolic</u> process
G0:0005575
             354
                     cellular component
G0:0046982
             353
                     protein <u>heterodimerization</u> activity
G0:0005925
             349
                     focal adhesion
G0:0006974
             347
                     cellular response to DNA damage stimulus
                     regulation of transcription from RNA polymerase II promoter
GO: 0006357
             347
G0:0016874
             342
                     <u>ligase</u> activity
G0:0004984
             342
                     olfactory receptor activity
G0:0050911
             342
                     detection of chemical stimulus involved in sensory perception of smell
G0:0008283
             339
                     cell proliferation
G0:0006955
             339
                     immune response
G0:0005102
             336
                     receptor binding
G0:0002376
             332
                     immune system process
G0:0007411
             329
                     axon guidance
G0:0051301
             316
                     cell division
G0:0030529
             311
                     <u>ribonucleoprotein</u> complex
G0:0005525
             307
                     GTP binding
G0:0042493
             307
                     response to drug
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G0:0032588
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                    trans-Golgi network membrane
G0:0001890
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                    placenta development
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                    cell leading edge
GO:0051219
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                    phosphoprotein binding
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                    cation-transporting ATPase activity
G0:0023014
                    signal transduction by phosphorylation
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G0:0048545
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                    response to steroid hormone
                    RNA polymerase II activating transcription factor binding
G0:0001102
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GO:0006909
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                    phagocytosis
G0:0008206
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                    bile acid metabolic process
G0:0051287
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                    NAD binding
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                    extrinsic apoptotic signaling pathway via death domain receptors
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G0:0001664
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                    G-protein coupled receptor binding
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                    pigmentation
G0:0090382
                    phagosome maturation
            35
G0:0006606
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                    protein import into nucleus
G0:0090502
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                    RNA phosphodiester bond hydrolysis, endonucleolytic
G0:0005245
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                    voltage-gated calcium channel activity
G0:0051603
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                    proteolysis involved in cellular protein catabolic process
G0:0002250
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                    adaptive immune response
G0:0071333
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                    cellular response to glucose stimulus
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                    triglyceride metabolic process
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                    NADP binding
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                    nuclear body
G0:0016266
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                    O-glycan processing
G0:0060348 34
                    bone development
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```
G0:0097192 34
G0:0002053 34
                    extrinsic apoptotic signaling pathway in absence of ligand
                    positive regulation of mesenchymal cell proliferation
G0:0032760 34
                    positive regulation of tumor necrosis factor production
G0:0006749
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                    glutathione metabolic process
G0:0016758
            34
                    transferase activity, transferring hexosyl groups
                    triglyceride biosynthetic process
G0:0019432
            34
                    phosphotransferase activity, alcohol group as acceptor
G0:0016773
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G0:0005782
            34
                    peroxisomal matrix
G0:0006446
            34
                    regulation of translational initiation
G0:0045599
                    negative regulation of fat cell differentiation
            34
G0:0005884
            34
                    actin filament
G0:0022008
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                    neurogenesis
GO:0007077
                    mitotic nuclear envelope disassembly
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G0:0005546
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                    phosphatidylinositol-4,5-bisphosphate binding
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                    endopeptidase inhibitor activity
                    oxidoreductase activity, acting on the CH-OH group of donors, NAD or NADP
G0:0016616 34
as acceptor
G0:0004221
                    ubiquitin thiolesterase activity
G0:0001837
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                    epithelial to mesenchymal transition
G0:2001237
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                    negative regulation of extrinsic apoptotic signaling pathway
                    negative regulation of cell adhesion
G0:0007162
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G0:0042692
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                    muscle cell differentiation
G0:0071560
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                    cellular response to transforming growth factor beta stimulus
                    ER to Golgi transport vesicle membrane
G0:0012507
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G0:0005834
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                    heterotrimeric G-protein complex
G0:0043621
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                    protein self-association
                   detection of chemical stimulus involved in sensory perception of bitter
G0:0001580 34
taste
G0:0033077
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                    T cell differentiation in thymus
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                    acute-phase response
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                    dendritic shaft
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                    synaptic transmission, glutamatergic
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G0:0043679
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                    axon terminus
G0:0042059
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                    delayed rectifier potassium channel activity
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                    T cell differentiation
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G0:0030901
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G0:0045595
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                    regulation of cell differentiation
G0:0048754
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                    branching morphogenesis of an epithelial tube
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                    Rab GTPase activator activity
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                    cognition
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                    regulation of heart contraction
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                    ER-associated ubiquitin-dependent protein catabolic process
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                    complement activation, classical pathway
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G0:0007257
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                    activation of JUN kinase activity
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                    response to interleukin-1
                    DNA-dependent DNA replication
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G0:0071277
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                    negative regulation of extrinsic apoptotic signaling pathway in absence of
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ligand
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                    developmental growth
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                    negative regulation of neuron projection development
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                    dendrite development
G0:0042594
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                    response to starvation
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G0:0032855
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                    response to progesterone
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G0:0048536
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                    cytoplasmic stress granule
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                    carboxypeptidase activity
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                    protein serine/threonine/tyrosine kinase activity
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binding transcription factor activity involved in positive regulation of transcription
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                    regulation of rhodopsin mediated signaling pathway
G0:0032720
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                    response to activity
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                    complement activation
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                    endoderm development
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                    single-stranded RNA binding
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                    regulation of glucose transport
G0:0008333
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                    endosome to lysosome transport
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                    regulation of protein stability
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                    cell aging
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                    brush border
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                    positive regulation of Ras GTPase activity
            28
G0:0019843
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                    regulation of axonogenesis
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G0:0005547
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                    fertilization
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                    B cell proliferation
                    negative regulation of blood pressure
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                    regulation of multicellular organism growth
                    neuronal action potential
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G0:1900740
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involved in apoptotic signaling pathway
                    pancreas development
G0:0031016 27
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                    regulation of signal transduction
G0:0043523
                    regulation of neuron apoptotic process
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                    regulation of angiogenesis
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G0:0050714
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                    thyroid hormone receptor binding
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                    oxidoreductase activity, acting on paired donors, with incorporation or
G0:0016706
           27
reduction of molecular oxygen, 2-oxoglutarate as one donor, and incorporation of one atom each
of oxygen into both donors
G0:0033572 27
G0:0007616 27
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                    response to bacterium
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                    synapse organization
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GO:0050690
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                    regulation of defense response to virus by virus
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                    response to radiation
G0:0006730
                    one-carbon metabolic process
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G0:0008060
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                    regulation of ARF GTPase activity
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                    protein sumoylation
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                    response to nicotine
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                    heterochromatin
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                    kinesin binding
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                    release of sequestered calcium ion into cytosol
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                    adult behavior
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                    eye development
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class mediator
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groups
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of one atom of oxygen
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sequestered calcium ion
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sarcoplasmic reticulum
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signaling pathway
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domain receptors
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via MHC class II
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                    basal part of cell
                    regulation of odontogenesis of dentin-containing tooth
G0:0042487
           8
G0:0003680
            8
                    AT DNA binding
G0:0060080
            8
                    regulation of inhibitory postsynaptic membrane potential
G0:0016559
                    peroxisome fission
GO:0006465
            8
                    signal peptide processing
GO:0000155
            8
                    phosphorelay sensor kinase activity
G0:0015385
                    sodium:proton antiporter activity
G0:0019388
            8
                    galactose catabolic process
G0:0005861
            8
                    troponin complex
G0:0071711
           8
                   basement membrane organization
G0:0061037
           8
                   negative regulation of cartilage development
G0:0042135
            8
                   neurotransmitter catabolic process
G0:0035970 8
                   peptidyl-threonine dephosphorylation
```

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G0:0000098 8
                    sulfur amino acid catabolic process
G0:0042754
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                    negative regulation of circadian rhythm
G0:0043522
                    leucine zipper domain binding
G0:0005522
           8
                    profilin binding
G0:0043996
            8
                    histone acetyltransferase activity (H4-K8 specific)
G0:0042116
            8
                    macrophage activation
G0:0050663
            8
                    cytokine secretion
G0:0030904
            8
                    retromer complex
                    clathrin-sculpted gamma-aminobutyric acid transport vesicle membrane
G0:0061202
                    receptor catabolic process
G0:0032801
            8
G0:0005068
            8
                    transmembrane receptor protein tyrosine kinase adaptor activity
                    wound healing, spreading of epidermal cells
G0:0035313
            8
G0:0007606
                    sensory perception of chemical stimulus
            8
G0:0071316
            8
                    cellular response to nicotine
                    negative regulation of lipid storage
G0:0010888
G0:0000307
                    cyclin-dependent protein kinase holoenzyme complex
            8
G0:0042053
            8
                    regulation of dopamine metabolic process
                    endothelial cell morphogenesis
G0:0001886
G0:0060997
            8
                    dendritic spine morphogenesis
G0:0034063
            8
                    stress granule assembly
                    regulation of glucose import
G0:0046324
            8
G0:0008139
                    nuclear localization sequence binding
            8
G0:0009629
            8
                    response to gravity
                    endocardial cushion morphogenesis
G0:0003203
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G0:0035567
            8
                    non-canonical Wnt signaling pathway
G0:0051567
            8
                    histone H3-K9 methylation
G0:0033559
           8
                    unsaturated fatty acid metabolic process
G0:0016471
            8
                    vacuolar proton-transporting V-type ATPase complex
G0:0006983
            8
                    ER overload response
                    epithelial cilium movement
G0:0003351
            8
                    positive regulation of interleukin-8 biosynthetic process positive regulation of tyrosine phosphorylation of Statl protein
G0:0045416
            8
G0:0042511
            8
G0:0042473
                    outer ear morphogenesis
G0:0009607
            8
                    response to biotic stimulus
G0:0032228
            8
                    regulation of synaptic transmission, GABAergic
                    alpha-linolenic acid metabolic process
G0:0036109
G0:0032486
            8
                    Rap protein signal transduction
G0:0086069
            8
                    bundle of His cell to Purkinje myocyte communication
G0:0031681
                    G-protein beta-subunit binding
G0:0007617
            8
                    mating behavior
G0:0051246
            8
                    regulation of protein metabolic process
                    positive regulation of fibroblast migration
G0:0010763
G0:0034244 8
                    negative regulation of transcription elongation from RNA polymerase II
promoter
G0:0002467 8
                    germinal center formation
                    transcription from mitochondrial promoter
G0:0006390 8
G0:0060396
            8
                    growth hormone receptor signaling pathway
G0:0042987
                    amyloid precursor protein catabolic process
G0:0008535
            8
                    respiratory chain complex IV assembly
G0:0016655
                    oxidoreductase activity, acting on NAD(P)H, quinone or similar compound as
            8
acceptor
G0:0032609
            8
                    interferon-gamma production
                    regulation of microtubule polymerization or depolymerization
G0:0031110
            8
G0:0097105
                    presynaptic membrane assembly
G0:0048029
            8
                    monosaccharide binding
G0:0001931
            8
                    uropod
G0:0072164
                    mesonephric tubule development
G0:0042555
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                    MCM complex
G0:0005744
            8
                    mitochondrial inner membrane presequence translocase complex
G0:0048708
                    astrocyte differentiation
            8
G0:0030299
            8
                    intestinal cholesterol absorption
G0:0016188
            8
                    synaptic vesicle maturation
G0:0070530
                    K63-linked polyubiquitin binding
                    cytoplasmic mRNA processing body assembly regulation of transcription from RNA polymerase III promoter
G0:0033962
            8
G0:0006359
            8
G0:0004535
                    poly(A)-specific ribonuclease activity
G0:0005113
            8
                    patched binding
G0:0014824
            8
                    artery smooth muscle contraction
G0:0045647
                    negative regulation of erythrocyte differentiation
G0:2001214
            8
                    positive regulation of vasculogenesis
G0:0004659
            8
                    prenyltransferase activity
G0:0033018
                    sarcoplasmic reticulum lumen
GO:0030118
            8
                    clathrin coat
                    negative regulation of norepinephrine secretion
GO:0010700
            8
G0:0046855 8
                    inositol phosphate dephosphorylation
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G0:0006335 8
                    DNA replication-dependent nucleosome assembly
G0:0030119
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                    AP-type membrane coat adaptor complex
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G0:0017049 8
G0:0042596
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                    fear response
G0:0043186
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                    P granule
G0:0097284
            8
                    hepatocyte apoptotic process
GO:0060155
                    platelet dense granule organization
            8
G0:0060158
            8
                    phospholipase C-activating dopamine receptor signaling pathway
                    morphogenesis of a branching structure
G0:0001763
            8
G0:0016494
            8
                    C-X-C chemokine receptor activity
G0:0021670
            8
                    lateral ventricle development
                    establishment of integrated proviral latency
G0:0075713
            8
G0:0005092
                    GDP-dissociation inhibitor activity
            8
G0:0032872
            8
                    regulation of stress-activated MAPK cascade
G0:0071361
                    cellular response to ethanol
                    positive regulation of transcription regulatory region DNA binding
G0:2000679
            8
G0:0031748
            8
                    D1 dopamine receptor binding
                    nuclear origin of replication recognition complex
G0:0005664
                    palmitoyl-CoA hydrolase activity
G0:0016290
            8
G0:0032469
            8
                    endoplasmic reticulum calcium ion homeostasis
                    positive regulation of protein homooligomerization
G0:0032464
           8
GO:0034101
            8
                    erythrocyte homeostasis
G0:0034450
            8
                    ubiquitin-ubiquitin ligase activity
                    histone acetyltransferase activity (H4-K16 specific)
G0:0046972
            8
G0:0001055
            8
                    RNA polymerase II activity
G0:0035414
            8
                    negative regulation of catenin import into nucleus
G0:0043020
           8
                    NADPH oxidase complex
G0:0031227
                    intrinsic component of endoplasmic reticulum membrane
            8
G0:0007270
            8
                    neuron-neuron synaptic transmission
                    histone-arginine N-methyltransferase activity
G0:0008469
            8
G0:0032854
            8
                    positive regulation of Rap GTPase activity
G0:0005641
            8
                    nuclear envelope lumen
G0:0008046
                    axon guidance receptor activity
G0:0005452
                    inorganic anion exchanger activity
            8
G0:0035259
            8
                    glucocorticoid receptor binding
G0:0035253
           8
                    ciliary rootlet
G0:0030695
            8
                    GTPase regulator activity
G0:0097267
            8
                    omega-hydroxylase P450 pathway
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                    paraxial mesoderm development
G0:0070102
            8
                    interleukin-6-mediated signaling pathway
G0:0033689
            8
                    negative regulation of osteoblast proliferation
G0:0031929
           8
                    TOR signaling
G0:0045945
                    positive regulation of transcription from RNA polymerase III promoter
            8
G0:0016322
            8
                    neuron remodeling
G0:0000002
                    mitochondrial genome maintenance
G0:0006688
                    glycosphingolipid biosynthetic process
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G0:2000573
            8
                    positive regulation of DNA biosynthetic process
G0:0000983
                    RNA polymerase II core promoter sequence-specific DNA binding
           8
transcription factor activity
G0:0035239
                    tube morphogenesis
G0:0061299 8
                    retina vasculature morphogenesis in camera-type eye
G0:0043068
           8
                    positive regulation of programmed cell death
G0:0031702
                    type 1 angiotensin receptor binding
           8
G0:0090005 8
                    negative regulation of establishment of protein localization to plasma
membrane
G0:0004383
                    guanylate cyclase activity
G0:0005385
                    zinc ion transmembrane transporter activity
G0:0004032
                    alditol:NADP+ 1-oxidoreductase activity
            8
G0:0070474
            8
                    positive regulation of uterine smooth muscle contraction
G0:0030056
           8
                    hemidesmosome
G0:0045721
                    negative regulation of gluconeogenesis
            8
G0:0005542
            8
                    folic acid binding
                    calcium-release channel activity
G0:0015278
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G0:0060670
                    branching involved in labyrinthine layer morphogenesis
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G0:0080025
            8
                    phosphatidylinositol-3,5-bisphosphate binding
G0:0005838
                    proteasome regulatory particle
GO:0007084
            8
                    mitotic nuclear envelope reassembly
G0:0006285
                    base-excision repair, AP site formation
            8
G0:0048149
                    behavioral response to ethanol
G0:0005227
            8
                    calcium activated cation channel activity
                    positive regulation of lamellipodium assembly
G0:0010592
            8
G0:0003084
                    positive regulation of systemic arterial blood pressure
                    negative regulation of glycogen biosynthetic process negative regulation of fatty acid biosynthetic process
G0:0045719
            8
G0:0045717
            8
G0:0042975 8
                    peroxisome proliferator activated receptor binding
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G0:0034379 8
G0:0008374 8
                    very-low-density lipoprotein particle assembly
                    0-acyltransferase activity
                    3-hydroxyacyl-CoA dehydrogenase activity
G0:0003857
G0:0042379
                    chemokine receptor binding
            8
G0:1902358
            8
                    sulfate transmembrane transport
G0:0019725
            8
                    cellular homeostasis
G0:0035855
                    megakaryocyte development
            8
G0:0030432
            8
                    peristalsis
G0:0061180
           8
                    mammary gland epithelium development
G0:0048846
                    axon extension involved in axon guidance
            8
G0:0008409
            8
                    5'-3' exonuclease activity
G0:0070989
            8
                    oxidative demethylation
G0:0070986
                    left/right axis specification
            8
G0:0000578
            8
                    embryonic axis specification
                    negative regulation of interleukin-17 production
G0:0032700
            8
G0:0043551
            8
                    regulation of phosphatidylinositol 3-kinase activity
G0:0061045
            8
                    negative regulation of wound healing
G0:0042355
            8
                    L-fucose catabolic process
                    DNA damage response, detection of DNA damage
G0:0042769
            8
G0:0043983
            8
                    histone H4-K12 acetylation
GO:0060059
            8
                    embryonic retina morphogenesis in camera-type eye
G0:0090084
            8
                    negative regulation of inclusion body assembly
G0:0006817
            8
                    phosphate ion transport
G0:0031406
            8
                    carboxylic acid binding
G0:0030235
            8
                    nitric-oxide synthase regulator activity
G0:0006554
            8
                    lysine catabolic process
                    negative regulation of histone acetylation
G0:0035067
            8
G0:0071949
            8
                    FAD binding
G0:0072321
            8
                    chaperone-mediated protein transport
G0:0072546
            8
                    ER membrane protein complex
G0:0050708
                    regulation of protein secretion
            8
G0:0050709
            8
                    negative regulation of protein secretion
G0:0005536
                    glucose binding
GO:0001542
            8
                    ovulation from ovarian follicle
                    negative regulation of heart contraction
G0:0045822
            8
G0:0070493
            8
                    thrombin receptor signaling pathway
G0:0009635
                    response to herbicide
            8
G0:0004862
            8
                    cAMP-dependent protein kinase inhibitor activity
G0:0007009
            8
                    plasma membrane organization
G0:0030219
            8
                    megakaryocyte differentiation
G0:0035457
            8
                    cellular response to interferon-alpha
GO:0000339
            8
                    RNA cap binding
G0:0050892
                    intestinal absorption
            8
G0:0001527
            8
                    microfibril
G0:0043534
            8
                    blood vessel endothelial cell migration
G0:0045793
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                    positive regulation of cell size
G0:0021707
            8
                    cerebellar granule cell differentiation
G0:0048752
                    semicircular canal morphogenesis
G0:0003337
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                    mesenchymal to epithelial transition involved in metanephros morphogenesis
G0:0051597
            8
                    response to methylmercury
G0:0032940 8
                    secretion by cell
G0:0032494
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                    response to peptidoglycan
G0:0043495
            8
                    protein anchor
                    RNA polymerase II transcription factor binding transcription factor
G0:0001191 8
activity involved in negative regulation of transcription GO:0005577 8 fibrinogen complex
                    positive regulation of lipoprotein lipase activity
G0:0051006 8
G0:0000904 8
G0:0032006 8
                    cell morphogenesis involved in differentiation
                    regulation of TOR signaling
G0:0032000 8
                    positive regulation of fatty acid beta-oxidation
G0:0030955
            8
                    potassium ion binding
G0:0046930
            8
                    pore complex
                    regulation of vascular permeability
G0:0043114
            8
G0:0031464
                    Cul4A-RING E3 ubiquitin ligase complex
            8
G0:0048513
            8
                    organ development
G0:0001205 8
                    RNA polymerase II distal enhancer sequence-specific DNA binding
transcription factor activity involved in positive regulation of transcription
G0:0033691 8
                    sialic acid binding
G0:0000733 8
                    DNA strand renaturation
GO:0071312
           8
                    cellular response to alkaloid
G0:0045197
                    establishment or maintenance of epithelial cell apical/basal polarity
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G0:0051001 8
                    negative regulation of nitric-oxide synthase activity
GO:0001939
            8
                    female pronucleus
G0:0051787
                    misfolded protein binding
G0:0046653 7
                    tetrahydrofolate metabolic process
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G0:0010759 7
G0:0008429 7
                    positive regulation of macrophage chemotaxis
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G0:0090136 7
                    epithelial cell-cell adhesion
GO:0009101
                     glycoprotein biosynthetic process
            7
G0:0032433
                     filopodium tip
                     regulation of glycolytic process
GO:0006110
GO:0007196
                     adenylate cyclase-inhibiting G-protein coupled glutamate receptor
signaling pathway
G0:0005732
            7
                     small nucleolar ribonucleoprotein complex
G0:0030122
                    AP-2 adaptor complex
G0:0030127
                    COPII vesicle coat
G0:0034235
            7
                    GPI anchor binding
                    positive regulation of natural killer cell activation spinal cord motor neuron cell fate specification
G0:0032816
G0:0021520
                    negative regulation of protein tyrosine kinase activity positive regulation of macrophage cytokine production
G0:0061099
G0:0060907
                     negative regulation of cytokine-mediated signaling pathway
G0:0001960
G0:0086012
                    membrane depolarization during cardiac muscle cell action potential
G0:0000183
                     chromatin silencing at rDNA
G0:0050665
                    hydrogen peroxide biosynthetic process
                    positive regulation of growth hormone secretion
GO:0060124
G0:0032418
                     lysosome localization
G0:0015108
                     chloride transmembrane transporter activity
G0:0048070
                    regulation of developmental pigmentation
                    positive regulation of protein homodimerization activity
G0:0090073
                     negative regulation of protein export from nucleus
G0:0046826
                     regulation of nucleocytoplasmic transport
G0:0046822
G0:0016018
                    cyclosporin A binding
G0:0042589
                     zymogen granule membrane
G0:0035612
                    AP-2 adaptor complex binding
G0:0060323
                    head morphogenesis
                    nucleoside triphosphate biosynthetic process
G0:0009142
G0:0001778
                    plasma membrane repair
G0:0015288
                    porin activity
            7
                     cellular response to laminar fluid shear stress
G0:0071499
G0:0070544
                    histone H3-K36 demethylation
G0:0032471
                    negative regulation of endoplasmic reticulum calcium ion concentration
G0:2000505
                     regulation of energy homeostasis
G0:0030836
                    positive regulation of actin filament depolymerization
                    alpha-beta T cell differentiation
GO:0046632
            7
                     regulation of macrophage activation
G0:0043030
G0:0005088
                     Ras guanyl-nucleotide exchange factor activity
G0:0004931
                    extracellular ATP-gated cation channel activity
G0:0048096
                     chromatin-mediated maintenance of transcription
G0:0090050
                    positive regulation of cell migration involved in sprouting angiogenesis
G0:0015377
                     cation:chloride symporter activity
G0:0034706
                     sodium channel complex
G0:0032059
                     bleb
G0:0006307
                    DNA dealkylation involved in DNA repair
G0:0006301
                     postreplication repair
G0:0043208
                    glycosphingolipid binding
                    positive regulation of phospholipase C activity positive regulation of triglyceride biosynthetic process
G0:0010863
G0:0010867
G0:0015116
                     sulfate transmembrane transporter activity
G0:0014037
                     Schwann cell differentiation
                     centromeric heterochromatin
GO:0005721
G0:0019441
                     tryptophan catabolic process to kynurenine
G0:0034115
                    negative regulation of heterotypic cell-cell adhesion
                    peptidyl-arginine methylation, to asymmetrical-dimethyl arginine
G0:0019919
G0:0002162
                    dystroglycan binding
G0:0030239
                    myofibril assembly
            7
                    extrinsic component of external side of plasma membrane
G0:0031232
                    protein localization to endosome
G0:0036010
G0:0043653
                    mitochondrial fragmentation involved in apoptotic process
G0:0009982
                     pseudouridine synthase activity
G0:0031491
                     nucleosome binding
G0:0004767
                     sphingomyelin phosphodiesterase activity
G0:0008271
                     secondary active sulfate transmembrane transporter activity
G0:0051354
                     negative regulation of oxidoreductase activity
                    positive regulation of oxidoreductase activity
G0:0051353
            7
G0:0010172
                     embryonic body morphogenesis
G0:2000543
                     positive regulation of gastrulation
G0:0019934
                     cGMP-mediated signaling
G0:0001849
                     complement component Clq binding
G0:0016265 7
                     death
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G0:0016264 7
G0:0044597 7
                   gap junction assembly
                   daunorubicin metabolic process
G0:0071679 7
                   commissural neuron axon guidance
G0:0030306 7
                   ADP-ribosylation factor binding
G0:0047498
                    calcium-dependent phospholipase A2 activity
GO:0047497
                   mitochondrion transport along microtubule
G0:0004972
                   N-methyl-D-aspartate selective glutamate receptor activity
G0:0051168
                   nuclear export
G0:0008635 7
                   activation of cysteine-type endopeptidase activity involved in apoptotic
process by cytochrome c
G0:0001614
                   purinergic nucleotide receptor activity
G0:0006882 7
                   cellular zinc ion homeostasis
G0:0008509
                   anion transmembrane transporter activity
G0:1900025
                   negative regulation of substrate adhesion-dependent cell spreading
G0:0050072
                   m7G(5')pppN diphosphatase activity
G0:0071318
                   cellular response to ATP
G0:0006700
                   C21-steroid hormone biosynthetic process
G0:0072657
                   protein localization to membrane
G0:0004568
                    chitinase activity
G0:0048172
                    regulation of short-term neuronal synaptic plasticity
                   positive regulation of long-term neuronal synaptic plasticity
G0:0048170
GO:0000012
                   single strand break repair
G0:0031666
                    positive regulation of lipopolysaccharide-mediated signaling pathway
                   negative regulation of lipopolysaccharide-mediated signaling pathway
G0:0031665
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G0:0004703
                   G-protein coupled receptor kinase activity
G0:0006701
                    progesterone biosynthetic process
                    complement activation, lectin pathway
G0:0001867
G0:0032589
                   neuron projection membrane
G0:1901030
                    positive regulation of mitochondrial outer membrane permeabilization
involved in apoptotic signaling pathway
                   positive regulation of ryanodine-sensitive calcium-release channel
G0:0060316 7
activity
G0:0060664
                   epithelial cell proliferation involved in salivary gland morphogenesis
G0:0033523
                   histone H2B ubiquitination
G0:0051099
                    positive regulation of binding
G0:0034983
                   peptidyl-lysine deacetylation
G0:0034713
                    type I transforming growth factor beta receptor binding
G0:0070688
                   MLL5-L complex
G0:0071223
                   cellular response to lipoteichoic acid
G0:0003360
                   brainstem development
           7
G0:0007091
                   metaphase/anaphase transition of mitotic cell cycle
G0:0050688
                    regulation of defense response to virus
GO:0005114
                   type II transforming growth factor beta receptor binding
G0:0060411
                    cardiac septum morphogenesis
                   mannosyltransferase activity
G0:0000030
G0:0004726
                   non-membrane spanning protein tyrosine phosphatase activity
G0:0031642
                    negative regulation of myelination
GO:0007567
                   parturition
GO:1901016
                   regulation of potassium ion transmembrane transporter activity
G0:0004017
                    adenylate kinase activity
G0:0015884
                    folic acid transport
G0:0060017
                   parathyroid gland development
G0:0032288
                   myelin assembly
G0:0008608
                   attachment of spindle microtubules to kinetochore
G0:0040011
                   locomotion
G0:0040016
                   embryonic cleavage
G0:0040019
                   positive regulation of embryonic development
G0:0033089
                   positive regulation of T cell differentiation in thymus
G0:0002606
                    positive regulation of dendritic cell antigen processing and presentation
                   integral component of synaptic vesicle membrane
G0:0030285
GO:0006032
                    chitin catabolic process
G0:0008035
                    high-density lipoprotein particle binding
                    regulation of systemic arterial blood pressure
GO:0003073
G0:0045722
                    positive regulation of gluconeogenesis
G0:0032421
                    stereocilium bundle
G0:0008190
                   eukaryotic initiation factor 4E binding
                   acetylgalactosaminyltransferase activity
GO:0008376
G0:0040036
                    regulation of fibroblast growth factor receptor signaling pathway
G0:0032731
                   positive regulation of interleukin-1 beta production
G0:0071599
                    otic vesicle development
GO:0005606
                    laminin-1 complex
G0:0048667
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G0:0031054
                    pre-miRNA processing
G0:0072357 7
                   PTW/PP1 phosphatase complex
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G0:0060351 7
G0:0042178 7
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                    structure-specific DNA binding
G0:0043569 7
                    negative regulation of insulin-like growth factor receptor signaling
pathway
G0:0070365 7
                    hepatocyte differentiation
G0:0008366 7
                    axon ensheathment
G0:0008312
                    7S RNA binding
G0:0070997
                    neuron death
                    negative regulation of interleukin-8 production
G0:0032717
G0:0033627
                    cell adhesion mediated by integrin
G0:0042753
                    positive regulation of circadian rhythm
G0:0042756
                    drinking behavior
G0:0050733
                    RS domain binding
G0:0048644
                    muscle organ morphogenesis
G0:0036057
                    slit diaphragm
G0:0042117
                    monocyte activation
G0:0097060
                    synaptic membrane
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GO:0045835
                    negative regulation of meiosis
G0:0042921
                    glucocorticoid receptor signaling pathway
GO:0005885
                    Arp2/3 protein complex
G0:0016458
                    gene silencing
G0:0061549
                    sympathetic ganglion development
G0:0010886
                    positive regulation of cholesterol storage
G0:1900116
                    extracellular negative regulation of signal transduction
G0:0002221
                    pattern recognition receptor signaling pathway
G0:0001553
                    luteinization
G0:0001881
                    receptor recycling
G0:0032525
                    somite rostral/caudal axis specification
G0:0015643
                    toxic substance binding
G0:0060687
                    regulation of branching involved in prostate gland morphogenesis
G0:0043596
                    nuclear replication fork
G0:0009620
                    response to fungus
                    cardiac ventricle morphogenesis
GO:0003208
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7
G0:0042490
                    mechanoreceptor differentiation
G0:0042304 7
                    regulation of fatty acid biosynthetic process
                    positive regulation of lymphocyte proliferation
G0:0050671
G0:0043043
                    peptide biosynthetic process
G0:0009437
                    carnitine metabolic process
           7
G0:0031065
                    positive regulation of histone deacetylation
G0:0055075
                    potassium ion homeostasis
                    actin filament depolymerization
G0:0030042
G0:0045410
                    positive regulation of interleukin-6 biosynthetic process
G0:0030948
                    negative regulation of vascular endothelial growth factor receptor
signaling pathway
G0:0015937 7
                    coenzyme A biosynthetic process
                    tRNA modification
G0:0006400
G0:0090162 7
                    establishment of epithelial cell polarity
G0:0032229
                    negative regulation of synaptic transmission, GABAergic
G0:0019237
                    centromeric DNA binding
G0:0060231 7
                    mesenchymal to epithelial transition
G0:0002262 7
G0:0008499 7
                    myeloid cell homeostasis
                    UDP-galactose:beta-N-acetylglucosamine beta-1,3-galactosyltransferase
activity
G0:0002726 7
G0:0046903 7
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G0:0046903
                    secretion
G0:0060536 7
                    cartilage morphogenesis
G0:0035372
                    protein localization to microtubule
G0:0003417
                    growth plate cartilage development
G0:0085020
                    protein K6-linked ubiquitination
GO:0008395
                    steroid hydroxylase activity
           7
                    histone demethylase activity (H3-K36 specific)
G0:0051864
                    microglial cell activation involved in immune response
G0:0002282
G0:0052689
                    carboxylic ester hydrolase activity
G0:0090051
                    negative regulation of cell migration involved in sprouting angiogenesis
G0:0031340
                    positive regulation of vesicle fusion
G0:0097320
                    membrane tubulation
G0:0008228
                    opsonization
G0:0014850
                    response to muscle activity
                    negative regulation of thymocyte apoptotic process
GO:0070244
G0:0044539
                    long-chain fatty acid import
G0:0007183
                    SMAD protein complex assembly
G0:0007184
                    SMAD protein import into nucleus
                    transmembrane receptor protein tyrosine phosphatase signaling pathway
G0:0007185
G0:0006584 7
                    catecholamine metabolic process
```

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G0:0002116 7
G0:0036310 7
                    semaphorin receptor complex
                    annealing helicase activity
                    1-phosphatidylinositol-4-phosphate 3-kinase activity
G0:0035005 7
G0:0045475
                    locomotor rhythm
G0:0021513
                    spinal cord dorsal/ventral patterning
G0:0007216
                    G-protein coupled glutamate receptor signaling pathway
                    tachykinin receptor signaling pathway
G0:0007217
G0:0003181
                    atrioventricular valve morphogenesis
G0:0046415
                    urate metabolic process
G0:0060136
                    embryonic process involved in female pregnancy
G0:0060137
                    maternal process involved in parturition
G0:0005000
                    vasopressin receptor activity
G0:0002320
                    lymphoid progenitor cell differentiation
                    intracellular calcium activated chloride channel activity
G0:0005229
                    positive regulation of superoxide anion generation
G0:0032930
G0:0016614
                    oxidoreductase activity, acting on CH-OH group of donors
G0:0072643
                    interferon-gamma secretion
G0:0031659 7
                    positive regulation of cyclin-dependent protein serine/threonine kinase
activity involved in G1/S transition of mitotic cell cycle
G0:0015077
                    monovalent inorganic cation transmembrane transporter activity
G0:0006491
                    N-glycan processing
G0:0004652 7
G0:0090244 7
                    polynucleotide adenylyltransferase activity
                    Wnt signaling pathway involved in somitogenesis
                    enamel mineralization
G0:0070166 7
G0:0014731
                    spectrin-associated cytoskeleton
G0:0014732
                    skeletal muscle atrophy
                    chromatin assembly or disassembly
G0:0006333
G0:0046470
                    phosphatidylcholine metabolic process
G0:0086064
                    cell communication by electrical coupling involved in cardiac conduction
G0:0005683
                    U7 snRNP
G0:0050966
                    detection of mechanical stimulus involved in sensory perception of pain
G0:0002161
                    aminoacyl-tRNA editing activity
G0:2001022
                    positive regulation of response to DNA damage stimulus
GO:0006544
                    glycine metabolic process
GO:0006929
                    substrate-dependent cell migration
G0:0000780
                    condensed nuclear chromosome, centromeric region
                    intra-S DNA damage checkpoint
G0:0031573
G0:0019068
                    virion assembly
                    microtubule organizing center organization
G0:0031023
G0:0001955
                    blood vessel maturation
           7
G0:0061337
                    cardiac conduction
GO:0003143
                    embryonic heart tube morphogenesis
G0:0031960
                    response to corticosteroid
G0:0010873
                    positive regulation of cholesterol esterification
                    positive regulation of receptor biosynthetic process
G0:0010870
G0:0045348
                    positive regulation of MHC class II biosynthetic process
           7
GO:0000046
                    autophagic vacuole fusion
G0:0070776
                    MOZ/MORF histone acetyltransferase complex
                    positive regulation of phospholipase activity
G0:0010518
GO:0006690
                    icosanoid metabolic process
G0:0004691
                    cAMP-dependent protein kinase activity
GO:0051156
                    glucose 6-phosphate metabolic process
G0:0060828
                    regulation of canonical Wnt signaling pathway
G0:0016763
                    transferase activity, transferring pentosyl groups
G0:0016004
                    phospholipase activator activity
G0:0035641
                    locomotory exploration behavior
G0:0060371
                    regulation of atrial cardiac muscle cell membrane depolarization
G0:0051963
                    regulation of synapse assembly
G0:0071420
                    cellular response to histamine
G0:0051988
                    regulation of attachment of spindle microtubules to kinetochore
                    negative regulation of activated T cell proliferation
GO:0046007
G0:0030371
                    translation repressor activity
GO:0030157
                    pancreatic juice secretion
G0:0043008
                    ATP-dependent protein binding
G0:0004908
                    interleukin-1 receptor activity
G0:0071850
                    mitotic cell cycle arrest
GO:0061072
                    iris morphogenesis
G0:0042693
                    muscle cell fate commitment
G0:0060426
                    lung vasculature development
                    lung epithelium development
G0:0060428
            7
                    positive regulation of keratinocyte proliferation
G0:0010838
G0:0051901
                    positive regulation of mitochondrial depolarization
GO:0004571
                    mannosyl-oligosaccharide 1,2-alpha-mannosidase activity
GO:0004579
                    dolichyl-diphosphooligosaccharide-protein glycotransferase activity
G0:0009972 7
                    cytidine deamination
```

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G0:0009156 7
G0:0071468 7
                    ribonucleoside monophosphate biosynthetic process
                    cellular response to acidity
G0:0038084 7
                    vascular endothelial growth factor signaling pathway
           7
G0:0044598
                    doxorubicin metabolic process
                    retina vasculature development in camera-type eye
G0:0061298
                    positive regulation of interleukin-12 biosynthetic process
GO: 0045084
G0:0045080
                    positive regulation of chemokine biosynthetic process
G0:0072341
                    modified amino acid binding
G0:0032099 7
                    negative regulation of appetite
GO:1901216
                    positive regulation of neuron death
G0:0033673
                    negative regulation of kinase activity
                    negative regulation of protein processing
G0:0010955
G0:0043270
                    positive regulation of ion transport
G0:0043279
                    response to alkaloid
G0:0034333
                    adherens junction assembly
G0:0005976
                    polysaccharide metabolic process
G0:0051923
                    sulfation
G0:0006776 7
                    vitamin A metabolic process
G0:0005548
                    phospholipid transporter activity
                    outward rectifier potassium channel activity
G0:0015271
G0:0010579 7
                    positive regulation of adenylate cyclase activity involved in G-protein
coupled receptor signaling pathway
                    myelin sheath abaxonal region
G0:0035748
G0:0005222 7
                    intracellular cAMP activated cation channel activity
G0:0048806 7
G0:0045294 7
                    genitalia development
                    alpha-catenin binding
G0:0070679 7
                    inositol 1,4,5 trisphosphate binding
G0:0051444 7
G0:1900017 7
                    negative regulation of ubiquitin-protein transferase activity
                    positive regulation of cytokine production involved in inflammatory
response
G0:0051492 7
G0:0015844 7
                    regulation of stress fiber assembly
                    monoamine transport
G0:0005021 7
                    vascular endothelial growth factor-activated receptor activity
G0:0030071
           7
7
                    regulation of mitotic metaphase/anaphase transition
G0:0008528
                    G-protein coupled peptide receptor activity
G0:0004536 7
                    deoxyribonuclease activity
G0:0060287 7
                    epithelial cilium movement involved in determination of left/right
asymmetry
G0:0019213
                    deacetylase activity
G0:0019217
                    regulation of fatty acid metabolic process
GO:2000020
                    positive regulation of male gonad development
G0:0031994
                    insulin-like growth factor I binding
G0:0045843
                    negative regulation of striated muscle tissue development
G0:0031005
                    filamin binding
                    small molecule binding
G0:0036094
                    regulation of cholesterol metabolic process
G0:0090181
G0:0040020
                    regulation of meiosis
G0:0005655
                    nucleolar ribonuclease P complex
G0:2000252
                    negative regulation of feeding behavior negative regulation of DNA recombination
G0:0045910
G0:0034372
                    very-low-density lipoprotein particle remodeling
                    superoxide-generating NADPH oxidase activity
GO:0016175
G0:0006828
                    manganese ion transport
G0:0030274
                    LIM domain binding
G0:0051920
                    peroxiredoxin activity
                    inner ear receptor cell development
GO:0060119
G0:0060442
                    branching involved in prostate gland morphogenesis
G0:0006002
                    fructose 6-phosphate metabolic process
G0:0014050
                    negative regulation of glutamate secretion
G0:0031638
                    zymogen activation
GO:0038061
                    NIK/NF-kappaB signaling
            7
G0:0019239
                    deaminase activity
                    protein binding transcription factor activity
GO:0000988
G0:0010831
                    positive regulation of myotube differentiation
G0:0060052
                    neurofilament cytoskeleton organization
G0:0060055
                    angiogenesis involved in wound healing
G0:0060710
                    chorio-allantoic fusion
                    labyrinthine layer development
GO:0060711
G0:0060712
                    spongiotrophoblast layer development
                    negative regulation of fibroblast apoptotic process
G0:2000270
            7
                    regulation of intracellular pH
G0:0051453
G0:0005915
                    zonula adherens
                    growth hormone secretion epidermal cell differentiation
G0:0030252
G0:0009913
G0:0006066 7
                    alcohol metabolic process
```

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G0:0072112 7
G0:0033674 7
                    glomerular visceral epithelial cell differentiation
                    positive regulation of kinase activity
G0:0048608 7
                    reproductive structure development
           7
G0:0019870
                    potassium channel inhibitor activity
G0:0035729
                    cellular response to hepatocyte growth factor stimulus
                    pericardium development
GO:0060039
G0:0035148
                    tube formation
G0:0034116
                    positive regulation of heterotypic cell-cell adhesion
G0:0006475
                    internal protein amino acid acetylation
G0:0038166
                    angiotensin-activated signaling pathway
G0:0048240
                    sperm capacitation
                    estradiol 17-beta-dehydrogenase activity
G0:0004303
G0:0032279
                    asymmetric synapse
G0:0010950
                    positive regulation of endopeptidase activity
G0:0032183
                    SUMO binding
G0:0032983
                    kainate selective glutamate receptor complex
G0:0030488
                    tRNA methylation
G0:0060770
                    negative regulation of epithelial cell proliferation involved in prostate
gland development
G0:0050700
                    CARD domain binding
                    negative regulation of skeletal muscle tissue development
G0:0048642
G0:0006282 7
G0:0035242 7
                    regulation of DNA repair
                    protein-arginine omega-N asymmetric methyltransferase activity
G0:0008440 7
                    inositol-1,4,5-trisphosphate 3-kinase activity
G0:0030991
                    intraciliary transport particle A
GO:0000506
                    glycosylphosphatidylinositol-N-acetylglucosaminyltransferase (GPI-GnT)
complex
G0:0030913
                    paranodal junction assembly
G0:0030916
                    otic vesicle formation
G0:0045824
                    negative regulation of innate immune response
G0:0008328
                    ionotropic glutamate receptor complex
G0:0017085
                    response to insecticide
G0:0070233
                    negative regulation of T cell apoptotic process
                    NADP metabolic process
GO:0006739
            7
G0:0009313
                    oligosaccharide catabolic process
                    pyrimidine nucleobase catabolic process
G0:0006208
G0:0043303
                    mast cell degranulation
G0:0050891
                    multicellular organismal water homeostasis
                    negative regulation of phagocytosis
G0:0050765
G0:0051382
                    kinetochore assembly
            7
                    negative regulation of cardiac muscle cell apoptotic process
G0:0010667
                    phosphatidylinositol phosphate kinase activity
G0:0016307
G0:0035590
                    purinergic nucleotide receptor signaling pathway
G0:0060561
                    apoptotic process involved in morphogenesis
G0:0022010
                    central nervous system myelination
G0:0001825
                    blastocyst formation
G0:0080008
                    Cul4-RING E3 ubiquitin ligase complex
                    pyrimidine nucleotide biosynthetic process
GO:0006221
G0:0046784
                    viral mRNA export from host cell nucleus
G0:0006082
                    organic acid metabolic process
G0:0030098
                    lymphocyte differentiation
GO:0005750
                    mitochondrial respiratory chain complex III
GO:0005579
                    membrane attack complex
GO:0000900
                    translation repressor activity, nucleic acid binding
G0:0042448
                    progesterone metabolic process
            7
G0:0031462
                    Cul2-RING ubiquitin ligase complex
G0:0051024
                    positive regulation of immunoglobulin secretion
G0:0070273
                    phosphatidylinositol-4-phosphate binding
G0:0046541
                    saliva secretion
G0:0045617
                    negative regulation of keratinocyte differentiation
           7
GO:0031123
                    RNA 3'-end processing
                    regulation of protein complex assembly
G0:0043254
G0:0031616 7
                    spindle pole centrosome
G0:0016641 7
                    oxidoreductase activity, acting on the CH-NH2 group of donors, oxygen as
acceptor
G0:0048019 7
                    receptor antagonist activity
GO:0003382
                    epithelial cell morphogenesis
G0:0019787
                    small conjugating protein ligase activity
G0:0034501
                    protein localization to kinetochore
G0:0001961
                    positive regulation of cytokine-mediated signaling pathway
            7
G0:0071313
                    cellular response to caffeine
G0:0060527
                    prostate epithelial cord arborization involved in prostate glandular
acinus morphogenesis
G0:0046689
                    response to mercury ion
                    Set1C/COMPASS complex
G0:0048188 7
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G0:0032780 7
G0:0019992 6
                    negative regulation of ATPase activity
                     diacylglycerol binding
G0:0030853 6
                    negative regulation of granulocyte differentiation
G0:0030851
            6
                     granulocyte differentiation
G0:0030854
            6
                     positive regulation of granulocyte differentiation
                    negative regulation of cell aging
G0:0090344
            6
G0:0045359
                    positive regulation of interferon-beta biosynthetic process
            6
G0:0055001
            6
                    muscle cell development
G0:0055009 6
                    atrial cardiac muscle tissue morphogenesis
G0:0070063
            6
                    RNA polymerase binding
G0:0051279
             6
                     regulation of release of sequestered calcium ion into cytosol
G0:0003300
            6
                     cardiac muscle hypertrophy
G0:0048554
                    positive regulation of metalloenzyme activity
            6
G0:0042541
            6
                     hemoglobin biosynthetic process
G0:0034382
            6
                     chylomicron remnant clearance
                    high-density lipoprotein particle assembly high-density lipoprotein particle clearance
G0:0034380
            6
G0:0034384
            6
G0:0006101
            6
                     citrate metabolic process
G0:0006108 6
                    malate metabolic process
G0:0060261 6
                    positive regulation of transcription initiation from RNA polymerase II
promoter
G0:0072015
G0:0010907
            6
                    glomerular visceral epithelial cell development
            6
                     positive regulation of glucose metabolic process
G0:0042167 6
                     heme catabolic process
G0:0001739
            6
                    sex chromatin
G0:0008503
            6
                     benzodiazepine receptor activity
G0:0015718 6
                    monocarboxylic acid transport
G0:0003916
                    DNA topoisomerase activity
            6
G0:0030870
            6
                    Mrell complex
G0:0005138
            6
                     interleukin-6 receptor binding
G0:0034715
            6
                    pICln-Sm protein complex
G0:0002925
            6
                     positive regulation of humoral immune response mediated by circulating
immunoglobulin
G0:0007341 6
                    penetration of zona pellucida
G0:2000318
            6
                     positive regulation of T-helper 17 type immune response
G0:0035051 6
                    cardiocyte differentiation
G0:0030020 6
G0:0035634 6
                    extracellular matrix structural constituent conferring tensile strength
                     response to stilbenoid
G0:0006346 6
                    methylation-dependent chromatin silencing
G0:0086013
                    membrane repolarization during cardiac muscle cell action potential
            6
G0:0031730
            6
                    CCR5 chemokine receptor binding
G0:0015893
            6
                    drug transport
G0:0050667
            6
                     homocysteine metabolic process
G0:0048539
            6
                     bone marrow development
G0:0005697
            6
                    telomerase holoenzyme complex
G0:0090080
                    positive regulation of MAPKKK cascade by fibroblast growth factor receptor
            6
signaling pathway
G0:0000405 6
                     bubble DNA binding
                    positive regulation of cAMP metabolic process regulation of cAMP metabolic process
G0:0030816
            6
G0:0030814
            6
G0:0015923 6
                     mannosidase activity
G0:0007223
                    Wnt signaling pathway, calcium modulating pathway regulation of protein export from nucleus
            6
G0:0046825
            6
GO:0001940
            6
                     male pronucleus
G0:0016012
            6
                     sarcoglycan complex
G0:0006323
            6
                    DNA packaging
G0:0042582
                    azurophil granule
            6
G0:0043190
                    ATP-binding cassette (ABC) transporter complex
            6
G0:0043196
            6
                     varicosity
G0:0005677
            6
                    chromatin silencing complex
G0:0006531
                    aspartate metabolic process
            6
G0:0001776
            6
                     leukocyte homeostasis
                    positive regulation of intracellular signal transduction
G0:1902533
            6
G0:0045347
            6
                    negative regulation of MHC class II biosynthetic process
G0:0042805
            6
                     actinin binding
G0:0070531
            6
                    BRCA1-A complex
GO:0001574
            6
                    ganglioside biosynthetic process
G0:0046581
            6
                     intercellular canaliculus
G0:0071636
                    positive regulation of transforming growth factor beta production
            6
GO:0035269
            6
                    protein O-linked mannosylation
G0:0051896
            6
                     regulation of protein kinase B signaling
GO:0030166
            6
                    proteoglycan biosynthetic process
G0:2001223
                    negative regulation of neuron migration
            6
GO:0006689
            6
                     ganglioside catabolic process
G0:0036038 6
                    TCTN-B9D complex
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G0:0045576 6
G0:0048102 6
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                    autophagic cell death
G0:0031957 6
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G0:0050798 6
                    activated T cell proliferation
G0:0017076
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                     purine nucleotide binding
                    U6 snRNA binding
G0:0017070
            6
G0:0071380
                    cellular response to prostaglandin E stimulus
            6
G0:0042797
            6
                     tRNA transcription from RNA polymerase III promoter
G0:0008211
                     glucocorticoid metabolic process
G0:0032324
                    molybdopterin cofactor biosynthetic process
            6
                    negative regulation of potassium ion transmembrane transport negative regulation of muscle cell apoptotic process
G0:1901380
            6
G0:0010656
            6
GO:0061179
                    negative regulation of insulin secretion involved in cellular response to
            6
glucose stimulus
G0:0048304 6
                     positive regulation of isotype switching to IgG isotypes
G0:0005351
            6
                    sugar:proton symporter activity
G0:0004000
            6
                     adenosine deaminase activity
G0:0048739 6
                     cardiac muscle fiber development
                     'de novo' IMP biosynthetic process
GO:0006189
            6
G0:0048732
            6
                     gland development
G0:0006729
            6
                     tetrahydrobiopterin biosynthetic process
GO:0000076
                     DNA replication checkpoint
            6
G0:0032300
            6
                     mismatch repair complex
G0:0001848
            6
                     complement binding
G0:0015793
            6
                     glycerol transport
G0:0006515
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                     misfolded or incompletely synthesized protein catabolic process
G0:0038092
            6
                    nodal signaling pathway
G0:0030314
                    junctional membrane complex
            6
                     response to manganese ion
G0:0010042
            6
G0:0032927
            6
                    positive regulation of activin receptor signaling pathway
G0:0007289
            6
                     spermatid nucleus differentiation
G0:0032790
            6
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G0:0008641
                     small protein activating enzyme activity
GO:0000125
                    PCAF complex
            6
                    clustering of voltage-gated sodium channels
G0:0045162
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G0:0045955
                     negative regulation of calcium ion-dependent exocytosis
            6
                    single-stranded DNA endodeoxyribonuclease activity
GO:0000014
            6
GO:0000018
            6
                     regulation of DNA recombination
                     NF-kappaB-inducing kinase activity
G0:0004704
            6
G0:0018026
                    peptidyl-lysine monomethylation
            6
G0:0032367
            6
                     intracellular cholesterol transport
                     thiolester hydrolase activity
G0:0016790
            6
                    positive regulation of memory \mathsf{T} cell differentiation
G0:0043382
            6
G0:0034405
            6
                     response to fluid shear stress
                     transepithelial chloride transport
G0:0030321
            6
G0:0030323
            6
                     respiratory tube development
G0:0047617
             6
                     acyl-CoA hydrolase activity
G0:0005372
                     water transmembrane transporter activity
                    spliceosomal tri-snRNP complex assembly relaxation of vascular smooth muscle
G0:0000244
            6
G0:0060087
            6
G0:0002070
                     epithelial cell maturation
            6
G0:0051103
                     DNA ligation involved in DNA repair
            6
G0:0032809
            6
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G0:0043615
                     astrocyte cell migration
            6
                    regulation of potassium ion transport regulation of transcription from RNA polymerase I promoter
G0:0043266
            6
G0:0006356
            6
G0:0007097
                     nuclear migration
            6
G0:0050687
                    negative regulation of defense response to virus
            6
G0:0030510
            6
                     regulation of BMP signaling pathway
                     response to growth hormone
G0:0060416
            6
GO:0043169
                     cation binding
            6
G0:0016584
            6
                     nucleosome positioning
                     regulation of smooth muscle cell migration
G0:0014910
            6
                     kinase activator activity
G0:0019209
            6
G0:0007019
            6
                     microtubule depolymerization
GO:1901017
            6
                    negative regulation of potassium ion transmembrane transporter activity
GO:0003091
            6
                     renal water homeostasis
G0:0006573
            6
                     valine metabolic process
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                     positive regulation of natural killer cell proliferation
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            6
                     ribosomal small subunit assembly
G0:0031253
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                     cell projection membrane
G0:0050291
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G0:0032287
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G0:0071204
            6
G0:0030280 6
                    structural constituent of epidermis
```

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G0:0071476 6
G0:0004523 6
                    cellular hypotonic response
                    RNA-DNA hybrid ribonuclease activity
G0:0042713 6
                    sperm ejaculation
G0:0022417
                    protein maturation by protein folding
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G0:0032020
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                    ISG15-protein conjugation
                    regulation of epidermal growth factor-activated receptor activity
G0:0007176 6
G0:0042158
                    lipoprotein biosynthetic process
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G0:0016570
            6
                    histone modification
G0:0009249 6
                    protein lipoylation
G0:0021591
                    ventricular system development
            6
G0:0008195
            6
                    phosphatidate phosphatase activity
G0:0004887
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                    thyroid hormone receptor activity
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G0:2000480
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G0:0035036
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                    sperm-egg recognition
G0:0003688
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G0:0048660
                    regulation of smooth muscle cell proliferation
            6
G0:0046920
            6
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G0:0002829
            6
                    negative regulation of type 2 immune response
G0:0010631
           6
                    epithelial cell migration
G0:0001594
            6
                    trace-amine receptor activity
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            6
                    positive regulation of fibroblast growth factor receptor signaling pathway
G0:0060026
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                    convergent extension
G0:0060022
            6
                    hard palate development
G0:0045814
            6
                    negative regulation of gene expression, epigenetic
G0:0035197
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                    siRNA binding
                    negative regulation of telomere maintenance via telomerase
GO:0032211
            6
G0:0070198
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                    protein localization to chromosome, telomeric region
G0:0003376
            6
                    sphingosine-1-phosphate signaling pathway
G0:0071546
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                    pi-body
G0:0033629
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                    negative regulation of cell adhesion mediated by integrin
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            6
G0:0009838
            6
                    abscission
G0:0003014 6
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G0:0004126
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G0:0006655
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G0:0032052
           6
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G0:0048771
            6
                    tissue remodeling
G0:0008432 6
                    JUN kinase binding
G0:0042118 6
G0:0071383 6
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                    cellular response to steroid hormone stimulus
                    clathrin coat of coated pit
G0:0030132 6
G0:0045760
           6
                    positive regulation of action potential
G0:0030643
            6
                    cellular phosphate ion homeostasis
G0:0070382 6
                    exocytic vesicle
GO:0060008 6
                    Sertoli cell differentiation
                    hair cell differentiation
G0:0035315
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G0:0048251 6
                    elastic fiber assembly
GO:0051096
                    positive regulation of helicase activity
            6
G0:0015450
           6
                    P-P-bond-hydrolysis-driven protein transmembrane transporter activity
G0:0019104 6
                    DNA N-glycosylase activity
G0:0071732
           6
                    cellular response to nitric oxide
G0:0034695
            6
                    response to prostaglandin E
G0:0010887 6
                    negative regulation of cholesterol storage
G0:0010884
                    positive regulation of lipid storage
            6
GO:1900119
            6
                    positive regulation of execution phase of apoptosis
                    regulation of branching involved in mammary gland duct morphogenesis
G0:0060762 6
GO:0010269
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                    response to selenium ion
G0:0009410
            6
                    response to xenobiotic stimulus
G0:0031512
                    motile primary cilium
            6
G0:0001882
                    nucleoside binding
            6
G0:2000059
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                    negative regulation of protein ubiquitination involved in ubiquitin-
dependent protein catabolic process
G0:0000930 6
G0:0016593 6
                    gamma-tubulin complex
                    Cdc73/Paf1 complex
G0:0016813
                    hydrolase activity, acting on carbon-nitrogen (but not peptide) bonds, in
linear amidines
G0:0008131 6
                    primary amine oxidase activity
G0:0072089 6
                    stem cell proliferation
G0:0050428 6
G0:0051569 6
                    3'-phosphoadenosine 5'-phosphosulfate biosynthetic process
                    regulation of histone H3-K4 methylation
G0:0051561 6
                    positive regulation of mitochondrial calcium ion concentration
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G0:0042308 6
G0:0006546 6
                    negative regulation of protein import into nucleus
                    glycine catabolic process
G0:0050672 6
                    negative regulation of lymphocyte proliferation
G0:0050881
                    musculoskeletal movement
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G0:0072583
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                    clathrin-mediated endocytosis
G0:0060510
           6
                    Type II pneumocyte differentiation
G0:0042471
                    ear morphogenesis
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G0:0022027
            6
                    interkinetic nuclear migration
                    telencephalon cell migration
G0:0022029 6
G0:0071514
                    genetic imprinting
            6
G0:0060235
                    lens induction in camera-type eye
G0:0007614
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                    short-term memory
G0:0002260
                    lymphocyte homeostasis
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G0:0004630
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                    phospholipase D activity
G0:0021884 6
                    forebrain neuron development
G0:0051247
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                    positive regulation of protein metabolic process
G0:0010761
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                    fibroblast migration
G0:0033210 6
                    leptin-mediated signaling pathway
G0:0016081
G0:0043297
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                    synaptic vesicle docking involved in exocytosis
            6
                    apical junction assembly
G0:0052033 6
                    pathogen-associated molecular pattern dependent induction by symbiont of
host innate immune response
G0:0003416 6
                    endochondral bone growth
                    acylglycerol lipase activity
G0:0047372 6
G0:0070914 6
G0:0085029 6
                    UV-damage excision repair
                    extracellular matrix assembly
                    positive regulation of myoblast proliferation
G0:2000288 6
G0:0043312
                    neutrophil degranulation
            6
G0:0097104
            6
                    postsynaptic membrane assembly
                    positive regulation of glial cell proliferation
G0:0060252
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G0:0007635
            6
                    chemosensory behavior
G0:0048406
                    nerve growth factor binding
            6
G0:0045046
                    protein import into peroxisome membrane
                    DNA double-strand break processing
GO:0000729
            6
G0:0002446
            6
                    neutrophil mediated immunity
G0:0050658
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                    RNA transport
G0:0008020
                    G-protein coupled photoreceptor activity
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G0:0031497
            6
                    chromatin assembly
G0:0051014
            6
                    actin filament severing
                    negative regulation of neuroblast proliferation
G0:0007406
            6
G0:0033539
            6
                    fatty acid beta-oxidation using acyl-CoA dehydrogenase
GO:0008517
            6
                    folic acid transporter activity
G0:0007182
                    common-partner SMAD protein phosphorylation
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G0:0005587
            6
                    collagen type IV trimer
                    cardiac muscle cell development
G0:0055013
            6
                    ventricular cardiac muscle cell differentiation
GO:0055012
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G0:2000323
                    negative regulation of glucocorticoid receptor signaling pathway
G0:0051205
                    protein insertion into membrane
                    cadmium ion binding
G0:0046870
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G0:0007379
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                    segment specification
G0:0060539
            6
                    diaphragm development
G0:0033130
                    acetylcholine receptor binding positive regulation of T cell receptor signaling pathway
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G0:0050862
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G0:0015886
                    heme transport
G0:0097440
                    apical dendrite
            6
G0:0018344
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                    protein geranylgeranylation
                    ubiquinol-cytochrome-c reductase activity
G0:0008121
G0:0005223
                    intracellular cGMP activated cation channel activity
            6
G0:1901379
            6
                    regulation of potassium ion transmembrane transport
G0:0048024
                    regulation of mRNA splicing, via spliceosome
            6
                    negative regulation of toll-like receptor 4 signaling pathway
GO:0034144
            6
                    positive regulation of toll-like receptor 4 signaling pathway
G0:0034145
            6
                    rough endoplasmic reticulum membrane
G0:0030867
            6
G0:0042584
            6
                    chromaffin granule membrane
G0:0046069
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                    cGMP catabolic process
G0:0030130
                    clathrin coat of trans-Golgi network vesicle
                    negative regulation of cAMP-mediated signaling
GO:0043951
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G0:0019082
            6
                    viral protein processing
G0:0016461
                    unconventional myosin complex
G0:0031726
            6
                    CCR1 chemokine receptor binding
G0:0005682
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                    U5 snRNP
G0:0044292
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                    dendrite terminus
G0:0044291
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                    cell-cell contact zone
                    regulation of response to DNA damage stimulus
GO:2001020
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G0:0008889 6
                    glycerophosphodiester phosphodiesterase activity
```

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G0:0019215 6
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                    intermediate filament binding
                    chromo shadow domain binding
G0:0032593 6
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G0:0032400
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                    motile cilium assembly
G0:0044458
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G0:0004415
                    hyalurononglucosaminidase activity
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G0:0034393
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                    positive regulation of smooth muscle cell apoptotic process
                    negative regulation of stress-activated MAPK cascade
G0:0032873
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G0:0072177
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                    mesonephric duct development
G0:0001957
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                    intramembranous ossification
G0:0003149
                    membranous septum morphogenesis
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G0:0090279
                    regulation of calcium ion import
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G0:0017069
            6
                    snRNA binding
G0:0048505
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                    regulation of timing of cell differentiation
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                    positive regulation of type I interferon-mediated signaling pathway
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G0:0050847
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                    progesterone receptor signaling pathway
                    regulation of calcium-mediated signaling
G0:0050848
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                    positive regulation of neurotransmitter secretion
GO:0001956
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G0:0046974
            6
                    histone methyltransferase activity (H3-K9 specific)
                    hair follicle placode formation
GO:0060789
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G0:0004439
                    phosphatidylinositol-4,5-bisphosphate 5-phosphatase activity
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G0:0004438
            6
                    phosphatidylinositol-3-phosphatase activity
                    regulation of smooth muscle cell differentiation
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G0:0021860
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                    pyramidal neuron development
G0:0035640
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                    exploration behavior
G0:0015824
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                    proline transport
G0:0015825
                    L-serine transport
           6
G0:0010535
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                    positive regulation of activation of JAK2 kinase activity
G0:0035254
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                    glutamate receptor binding
                    proton-transporting two-sector ATPase complex, catalytic domain
G0:0033178
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                    positive regulation of glucose import in response to insulin stimulus
G0:2001275
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G0:0031209
           6
                    SCAR complex
                    negative regulation of Rho GTPase activity
GO:0034259
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G0:0031402
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                    sodium ion binding
G0:0055102
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                    lipase inhibitor activity
G0:0005663
                    DNA replication factor C complex
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G0:0016043
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                    cellular component organization
G0:0010830
           6
                    regulation of myotube differentiation
G0:0010839
            6
                    negative regulation of keratinocyte proliferation
G0:0010614
            6
                    negative regulation of cardiac muscle hypertrophy
GO:0005623
           6
                    cell
G0:0071229
           6
                    cellular response to acid
G0:0008064
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                    regulation of actin polymerization or depolymerization
G0:0014033
           6
                    neural crest cell differentiation
G0:0051347
                    positive regulation of transferase activity
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                    negative regulation of hydrolase activity
G0:0051346
G0:0002523
                    leukocyte migration involved in inflammatory response
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                    DNA integration
G0:0015074
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G0:0046578
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                    regulation of Ras protein signal transduction
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                    peptidyl-tyrosine autophosphorylation
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                    ectopic germ cell programmed cell death
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G0:0016528
            6
                    sarcoplasm
G0:0016255
                    attachment of GPI anchor to protein
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G0:0017121
                    phospholipid scrambling
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G0:0072205
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                    metanephric collecting duct development
G0:0004969
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                    histamine receptor activity
G0:0031264
                    death-inducing signaling complex
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G0:0031265
            6
                    CD95 death-inducing signaling complex
G0:0002064
                    epithelial cell development
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                    aldehyde dehydrogenase [NAD(P)+] activity
GO:0004030
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                    chemorepellent activity
G0:0045499
            6
                    negative regulation of epinephrine secretion
G0:0032811
            6
G0:0032813
            6
                    tumor necrosis factor receptor superfamily binding
G0:0071875
            6
                    adrenergic receptor signaling pathway
G0:0055123
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                    digestive system development
G0:0000808
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                    origin recognition complex
G0:0097345
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                    mitochondrial outer membrane permeabilization
G0:0097208
                    alveolar lamellar body
                    neural precursor cell proliferation
G0:0061351
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G0:0010818
            6
                    T cell chemotaxis
G0:0060406
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                    positive regulation of penile erection
G0:0005979
            6
                    regulation of glycogen biosynthetic process
GO:0006777
            6
                    Mo-molybdopterin cofactor biosynthetic process
G0:1902305 6
                    regulation of sodium ion transmembrane transport
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G0:2000778 6
G0:2000772 6
                    positive regulation of interleukin-6 secretion
                    regulation of cellular senescence
                    negative regulation of cytokine production
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G0:0046512
                    sphingosine biosynthetic process
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G0:0031466
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                    Cul5-RING ubiquitin ligase complex
G0:0042608 6
                    T cell receptor binding
G0:0070670
                    response to interleukin-4
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G0:0070419
            6
                    nonhomologous end joining complex
                    negative regulation of glial cell apoptotic process
G0:0034351
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G0:0015840
                    urea transport
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G0:0035004
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G0:0042923
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NLRP3 inflammasome complex
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G0:0003158
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G0:0051302
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                    regulation of cell division
                    cerebellar cortex development
G0:0021695
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G0:0003085
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                    negative regulation of systemic arterial blood pressure
                    regulation of systemic arterial blood pressure by renin-angiotensin
G0:0003081
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                    positive regulation of mitotic metaphase/anaphase transition
G0:0045842
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G0:0006563
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                    L-serine metabolic process
G0:0035767
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                    endothelial cell chemotaxis
G0:0009253
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                    peptidoglycan catabolic process
G0:0002024
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                    diet induced thermogenesis
                    adiponectin-activated signaling pathway
G0:0033211
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G0:0004075 6
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                    positive regulation of granulocyte macrophage colony-stimulating factor
G0:0032725 6
production
G0:0005851
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G0:0015232
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                    heme transporter activity
G0:0035865
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                    cellular response to potassium ion
G0:0006004 6
                    fucose metabolic process
GO:0048793
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                    pronephros development
G0:0031639
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                    plasminogen activation
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G0:2000008
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G0:2000009
                    negative regulation of protein localization to cell surface
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G0:0019236
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                    response to pheromone
G0:0043089
                    positive regulation of Cdc42 GTPase activity
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G0:0060586
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                    multicellular organismal iron ion homeostasis
G0:0097527
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                    necroptotic signaling pathway
G0:0009584
                    detection of visible light
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                    negative regulation of receptor-mediated endocytosis
G0:0048261
           6
                    toxin transporter activity
G0:0019534
           6
G0:0070182
           6
                    DNA polymerase binding
G0:2000271
                    positive regulation of fibroblast apoptotic process negative regulation of DNA biosynthetic process
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G0:2000279
G0:0042791
                    5S class rRNA transcription from RNA polymerase III type 1 promoter
G0:0033619
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                    membrane protein proteolysis
G0:0051983
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                    regulation of chromosome segregation
G0:0061512
                    protein localization to cilium
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G0:0006068
                    ethanol catabolic process
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                    NAD(P)+-protein-arginine ADP-ribosyltransferase activity
G0:0003956
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G0:0045630
                    positive regulation of T-helper 2 cell differentiation
G0:0043576
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                    regulation of respiratory gaseous exchange
G0:0060054
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                    positive regulation of epithelial cell proliferation involved in wound
healing
G0:0006473
           6
                    protein acetylation
G0:0046134
                    pyrimidine nucleoside biosynthetic process
           6
G0:0048864 6
                    stem cell development
GO: 2001300
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                    lipoxin metabolic process
G0:0048247
            6
                    lymphocyte chemotaxis
                    positive regulation of myelination
G0:0031643
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G0:0045588
                    positive regulation of gamma-delta T cell differentiation
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G0:0051552
            6
                    flavone metabolic process
G0:0044183
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                    protein binding involved in protein folding
                    positive regulation of axon extension involved in axon guidance
G0:0048842
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G0:0006013
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                    mannose metabolic process
G0:0006266
                    DNA ligation
G0:0043237
            6
                    laminin-1 binding
G0:0006047
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                    UDP-N-acetylglucosamine metabolic process
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                    embryo development ending in birth or egg hatching
G0:0010642 6
                    negative regulation of platelet-derived growth factor receptor signaling
pathway
G0:0048643 6
                    positive regulation of skeletal muscle tissue development
```

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G0:0007143 6
G0:0048645 6
                    female meiotic division
                    organ formation
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                   NURF complex
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                    protein hexamerization
G0:0030915 6
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G0:0060013
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                   heterocycle metabolic process
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G0:0045823
                    positive regulation of heart contraction
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G0:0035965
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G0:0045217
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G0:2000188
                   regulation of cholesterol homeostasis
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                   exit from mitosis
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G0:0010457
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                    centriole-centriole cohesion
G0:0030213 6
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G0:0016447
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G0:0061003
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G0:0031167
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                    rRNA methylation
G0:0004176
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G0:0036302
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                    atrioventricular canal development
G0:0006997 6
                   nucleus organization
G0:0003341
                    cilium movement
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G0:0016308
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G0:0050957
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G0:0042788
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                   polysomal ribosome
G0:0007064
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                   mitotic sister chromatid cohesion
G0:0043497
                   regulation of protein heterodimerization activity
G0:0016462
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                   pyrophosphatase activity
G0:0010941
           6
                    regulation of cell death
G0:0002639
                   positive regulation of immunoglobulin production
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G0:0030957
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                    Tat protein binding
G0:0014808
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                    release of sequestered calcium ion into cytosol by sarcoplasmic reticulum
G0:0032964
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GO:0007044
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G0:0007041
           6
                    lysosomal transport
G0:0045616 6
                   regulation of keratinocyte differentiation
G0:0015695
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                   organic cation transport
G0:0016342
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                   catenin complex
                   peptide transport
G0:0015833 6
G0:0042428
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                   serotonin metabolic process
G0:0042423
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                    catecholamine biosynthetic process
G0:0015194
                    L-serine transmembrane transporter activity
G0:0001561
                   fatty acid alpha-oxidation
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G0:0031102
                   neuron projection regeneration
G0:0097178
                    ruffle assembly
G0:0020027
                   hemoglobin metabolic process
G0:0060267
                    positive regulation of respiratory burst
G0:0046654
                   tetrahydrofolate biosynthetic process
GO:0006620
                   posttranslational protein targeting to membrane
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G0:0004445
                    inositol-polyphosphate 5-phosphatase activity
G0:0004994
                   somatostatin receptor activity
G0:0004668
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                   protein-arginine deiminase activity
G0:0018101
            5
                    protein citrullination
G0:0051271
                   negative regulation of cellular component movement
                   negative regulation of plasminogen activation
GO:0010757
           5
G0:0010756
                    positive regulation of plasminogen activation
G0:0002903
                   negative regulation of B cell apoptotic process
G0:0006102
                   isocitrate metabolic process
            5
G0:0090286
                    cytoskeletal anchoring at nuclear membrane
G0:0090281
                   negative regulation of calcium ion import
GO:0035860
                   glial cell-derived neurotrophic factor receptor signaling pathway
GO:0008200
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                    ion channel inhibitor activity
G0:0048733
                    sebaceous gland development
G0:0005105
            5
                   type 1 fibroblast growth factor receptor binding
G0:0009108
            5
                    coenzyme biosynthetic process
G0:2000107
                   negative regulation of leukocyte apoptotic process
G0:0036159
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                   inner dynein arm assembly
G0:0036158
            5
                   outer dynein arm assembly
                   striated muscle thin filament
G0:0005865 5
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G0:0016628 5
                    oxidoreductase activity, acting on the CH-CH group of donors, NAD or NADP
as acceptor
G0:0008508 5
                    bile acid:sodium symporter activity
G0:0045653
                    negative regulation of megakaryocyte differentiation
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G0:0070507
                    regulation of microtubule cytoskeleton organization
G0:0097153
                    cysteine-type endopeptidase activity involved in apoptotic process
G0:0007195
                    adenylate cyclase-inhibiting dopamine receptor signaling pathway
G0:0006642
                    triglyceride mobilization
                    metanephric S-shaped body morphogenesis
G0:0072284
                    negative regulation of dendritic cell differentiation
G0:2001199
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G0:0006924
                    activation-induced cell death of T cells
G0:0004645
                    phosphorylase activity
GO:0019871
                    sodium channel inhibitor activity
G0:0010737
                    protein kinase A signaling
GO:0001696
                    gastric acid secretion
                    positive regulation of protein kinase A signaling
G0:0010739
G0:0021782
                    glial cell development
G0:1901800
                    positive regulation of proteasomal protein catabolic process
GO:0033265
            5
                    choline binding
G0:0045077
                    negative regulation of interferon-gamma biosynthetic process
                    sensory perception of sweet taste
G0:0050916
GO:0086011
                    membrane repolarization during action potential
G0:0006122
                    mitochondrial electron transport, ubiquinol to cytochrome c
G0:0060122
                    inner ear receptor stereocilium organization
GO:0002318
            5
                    myeloid progenitor cell differentiation
G0:0051047
                    positive regulation of secretion
G0:0001758
                    retinal dehydrogenase activity
GO:0032410
                    negative regulation of transporter activity
G0:0032411
                    positive regulation of transporter activity
G0:0046540
                    U4/U6 x U5 tri-snRNP complex
                    Y-form DNA binding
G0:0000403
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G0:0070296
                    sarcoplasmic reticulum calcium ion transport
G0:0072584
                    caveolin-mediated endocytosis
GO:0071169
                    establishment of protein localization to chromatin
            5
                    regulation of body fluid levels
G0:0050878
                    positive regulation of B cell activation
G0:0050871
G0:0006167
                    AMP biosynthetic process
            5
G0:0030104
                    water homeostasis
G0:0006662
                    glycerol ether metabolic process
GO:0000796
            5
                    condensin complex
G0:0044342
                    type B pancreatic cell proliferation
                    cellular response to parathyroid hormone stimulus
G0:0071374
G0:0008519
                    ammonium transmembrane transporter activity
            5
G0:0050801
                    ion homeostasis
G0:0016015
                    morphogen activity
                    peptidoglycan receptor activity
GO:0016019
            5
G0:0006497
                    protein lipidation
G0:0005672
                    transcription factor TFIIA complex
G0:0022900
            5
                    electron transport chain
G0:2001014
                    regulation of skeletal muscle cell differentiation
G0:0001774
                    microglial cell activation
GO:0008090
            5
                    retrograde axon cargo transport pre-snoRNP complex
G0:0070761
G0:0071493
                    cellular response to UV-B
G0:0002573
                    myeloid leukocyte differentiation
            5
G0:0050856
                    regulation of T cell receptor signaling pathway
                    positive regulation of histone phosphorylation
G0:0033129
G0:0047184
            5
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G0:0030346
                    protein phosphatase 2B binding
                    structural constituent of tooth enamel
G0:0030345
                    positive regulation of cardioblast differentiation
GO:0051891
            5
G0:0061154
                    endothelial tube morphogenesis
                    negative regulation of T cell differentiation
G0:0045581
G0:0043031
                    negative regulation of macrophage activation
G0:0006686
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G0:0006684
                    sphingomyelin metabolic process
                    sphingomyelin catabolic process regulation of cilium assembly
GO:0006685
G0:1902017
G0:0004689
                    phosphorylase kinase activity
G0:0032502
            5
                    developmental process
                    negative regulation of B cell differentiation
G0:0045578
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G0:0061304
                    retinal blood vessel morphogenesis
                    positive regulation of transmission of nerve impulse ubiquitin-dependent SMAD protein catabolic process
GO:0051971
            5
GO:0030579
            5
G0:0005432 5
                    calcium:sodium antiporter activity
```

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G0:0086036 5
                    regulation of cardiac muscle cell membrane potential
G0:0004749
                    ribose phosphate diphosphokinase activity
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                    snRNA transcription from RNA polymerase II promoter
G0:0006104
                    succinyl-CoA metabolic process
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G0:0070700
                    BMP receptor binding
                    pyruvate biosynthetic process
G0:0042866
G0:0004024
                    alcohol dehydrogenase activity, zinc-dependent
G0:0051414
                    response to cortisol
G0:0000445
                    THO complex part of transcription export complex
G0:0051379
                    epinephrine binding
            5
G0:0032452
                    histone demethylase activity
                    histone demethylase activity (H3-K9 specific)
G0:0032454
G0:0010694
                    positive regulation of alkaline phosphatase activity
G0:0019911
                    structural constituent of myelin sheath
G0:0016202
                    regulation of striated muscle tissue development
G0:0051707
                    response to other organism
G0:0042403
                    thyroid hormone metabolic process
G0:0048305
                    immunoglobulin secretion
GO:0007262
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                    STAT protein import into nucleus
G0:0036016
                    cellular response to interleukin-3
                    cellular sodium ion homeostasis
GO:0006883
G0:0021853
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                    cerebral cortex GABAergic interneuron migration
G0:0050920
                    regulation of chemotaxis
G0:0034656
                    nucleobase-containing small molecule catabolic process
G0:0060363
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                    cranial suture morphogenesis
G0:0006725
                    cellular aromatic compound metabolic process
G0:2001054
                    negative regulation of mesenchymal cell apoptotic process
                    cyclin catabolic process
GO:0008054
            5
G0:0008588
                    release of cytoplasmic sequestered NF-kappaB
                    calcium, potassium:sodium antiporter activity
G0:0008273
G0:0008278
                    cohesin complex
                    positive regulation of cardiac muscle cell differentiation
G0:2000727
G0:0000460
                    maturation of 5.8S rRNA
                    maturation of SSU-rRNA from tricistronic rRNA transcript (SSU-rRNA, 5.8S
G0:0000462
rRNA, LSU-rRNA)
G0:0032308 5
                    positive regulation of prostaglandin secretion
                    multivesicular body sorting pathway
G0:0071985
            5
G0:0071458
            5
                    integral component of cytoplasmic side of endoplasmic reticulum membrane
G0:0001842
                    neural fold formation
                    actin crosslink formation
GO: 0051764
            5
G0:0006534
                    cysteine metabolic process
GO:0006537
                    glutamate biosynthetic process
G0:0004977
                    melanocortin receptor activity
            5
G0:0022626
           5
                    cytosolic ribosome
G0:0018216
                    peptidyl-arginine methylation
GO:0005375
            5
                    copper ion transmembrane transporter activity
G0:0004028
                    3-chloroallyl aldehyde dehydrogenase activity
G0:0006518
                    peptide metabolic process
G0:0016075
            5
                    rRNA catabolic process
                    monoamine transmembrane transporter activity
G0:0008504
G0:0071248
                    cellular response to metal ion
G0:0060430
            5
                    lung saccule development
G0:1900028
                    negative regulation of ruffle assembly
G0:1900029
                    positive regulation of ruffle assembly
GO: 0015816
            5
                    glycine transport
G0:0010828
            5
                    positive regulation of glucose transport
G0:0051938
                    L-glutamate import
G0:0071455
                    cellular response to hyperoxia
            5
G0:0072207
            5
                    metanephric epithelium development
G0:0018027
                    peptidyl-lysine dimethylation
G0:0045322
                    unmethylated CpG binding
            5
G0:0045657
            5
                    positive regulation of monocyte differentiation
                    mineralocorticoid biosynthetic process
G0:0006705
G0:0032364
                    oxygen homeostasis
            5
G0:0019957
                    C-C chemokine binding
G0:0010564
                    regulation of cell cycle process
            5
GO:0071474
                    cellular hyperosmotic response
GO:0070300
            5
                    phosphatidic acid binding
G0:0032585
                    multivesicular body membrane
GO:0043587
            5
                    tongue morphogenesis
GO:0017111
                    nucleoside-triphosphatase activity
G0:0003708
                    retinoic acid receptor activity
GO:0006555
            5
                    methionine metabolic process
GO:0006552
            5
                    leucine catabolic process
G0:0004957 5
                    prostaglandin E receptor activity
```

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G0:0031584 5
G0:0060665 5
                    activation of phospholipase D activity
                    regulation of branching involved in salivary gland morphogenesis by
mesenchymal-epithelial signaling
GO:0060666 5
                    dichotomous subdivision of terminal units involved in salivary gland
branching
G0:0060662 5
                    salivary gland cavitation
G0:0070842 5
G0:0022602 5
                    aggresome assembly
                    ovulation cycle process
G0:0034987 5
                    immunoglobulin receptor binding
G0:0018230 5
                    peptidyl-L-cysteine S-palmitoylation
G0:1990111
                    spermatoproteasome complex
G0:0004046
                    aminoacylase activity
G0:0004047
                    aminomethyltransferase activity negative regulation of beta-amyloid formation
G0:1902430
G0:0010793
                    regulation of mRNA export from nucleus
G0:0007423
                    sensory organ development
            5
G0:0008622
            5
                    epsilon DNA polymerase complex
G0:1900181
                    negative regulation of protein localization to nucleus
GO:0000813
            5
                    ESCRT I complex
G0:0003139
                    secondary heart field specification
                    DNA-templated transcription, termination
GO:0006353
G0:0051488
            5
                    activation of anaphase-promoting complex activity
G0:0007098
            5
                    centrosome cycle
                    regulation of mRNA processing
G0:0050684
G0:0001071
            5
                    nucleic acid binding transcription factor activity
G0:0002666
                    positive regulation of T cell tolerance induction
                    proton-transporting two-sector ATPase complex
G0:0016469
GO:0015106
            5
                    bicarbonate transmembrane transporter activity
G0:0030516
                    regulation of axon extension
G0:0030284
                    estrogen receptor activity
                    negative regulation of smooth muscle cell apoptotic process negative regulation of inflammatory response to antigenic stimulus
G0:0034392
G0:0002862
            -5
G0:0002860 5
                    positive regulation of natural killer cell mediated cytotoxicity directed
against tumor cell target
G0:0070097
            5
                    delta-catenin binding
G0:0045329 5
                    carnitine biosynthetic process
G0:0030121 5
G0:0046500 5
                    AP-1 adaptor complex
                    S-adenosylmethionine metabolic process
                    phosphatidylinositol N-acetylglucosaminyltransferase activity
G0:0017176 5
                    NADH metabolic process
GO:0006734
            5
G0:0015889
                    cobalamin transport
G0:0006572
                    tyrosine catabolic process
G0:0005007
                    fibroblast growth factor-activated receptor activity
            5
G0:0030911
                    TPR domain binding
                    hepoxilin biosynthetic process
G0:0051122
G0:0018963
            5
                    phthalate metabolic process
G0:0040012
                    regulation of locomotion
G0:0032754
                    positive regulation of interleukin-5 production
G0:0046339
                    diacylglycerol metabolic process
G0:0030297
                    transmembrane receptor protein tyrosine kinase activator activity
G0:0060850
                    regulation of transcription involved in cell fate commitment
GO:0051461
            5
                    positive regulation of corticotropin secretion
G0:0005827
                    polar microtubule
G0:0005828
                    kinetochore microtubule
                    muscle tendon junction
G0:0005927
            5
G0:0045820
            5
                    negative regulation of glycolytic process
G0:0030061
                    mitochondrial crista
G0:0005219
            5
                    ryanodine-sensitive calcium-release channel activity
G0:0008038
            5
                    neuron recognition
                    regulation of norepinephrine secretion
G0:0014061
GO:0031622
                    positive regulation of fever generation
            5
G0:0060290
                    transdifferentiation
G0:0042719
                    mitochondrial intermembrane space protein transporter complex
G0:0071253
            5
                    connexin binding
G0:0048671
                    negative regulation of collateral sprouting
G0:0022414
                    reproductive process
GO:0009744
                    response to sucrose
GO:0019222
                    regulation of metabolic process
G0:0043546
                    molybdopterin cofactor binding
                    positive regulation of transcription from RNA polymerase II promoter
GO: 1901522
involved in cellular response to chemical stimulus
G0:0031013 5
                    troponin I binding
G0:0060046
            5
                    regulation of acrosome reaction
GO:0060040
            5
                    retinal bipolar neuron differentiation
G0:0060627 5
                    regulation of vesicle-mediated transport
```

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G0:0001222 5
G0:1902475 5
                    transcription corepressor binding
                    L-alpha-amino acid transmembrane transport
                    nuclear exosome (RNase complex)
G0:0000176 5
                    proton-transporting ATP synthase complex, catalytic core F(1)
G0:0045261
           -5
G0:0016242
                    negative regulation of macroautophagy
                    positive regulation of interleukin-13 production
G0:0032736
G0:0072488
           5
                    ammonium transmembrane transport
G0:0060831
                    smoothened signaling pathway involved in dorsal/ventral neural tube
patterning
            5
G0:0060830
                    ciliary receptor clustering involved in smoothened signaling pathway
G0:0033600
                    negative regulation of mammary gland epithelial cell proliferation
G0:0061133
                    endopeptidase activator activity
                    regulation of protein kinase A signaling regulation of adaptive immune response
G0:0010738
G0:0002819
                    negative regulation of protein targeting to membrane
G0:0090315
G0:0046923
                    ER retention sequence binding
                    positive regulation of adaptive immune response
G0:0002821
                    sensory perception of umami taste
GO:0050917
                    determination of digestive tract left/right asymmetry
GO:0071907
            -5
G0:0042382
                    paraspeckles
G0:0035093
                    spermatogenesis, exchange of chromosomal proteins
GO:0016556
            5
                    mRNA modification
G0:0042289
            5
                    MHC class II protein binding
G0:0019863
                    IgE binding
G0:0060029
            5
                    convergent extension involved in organogenesis
G0:0060023
                    soft palate development
G0:0001880
                    Mullerian duct regression
GO:0033119
            5
                    negative regulation of RNA splicing
G0:0008171
                    O-methyltransferase activity
G0:0003831 5
                    beta-N-acetylglucosaminylglycopeptide beta-1,4-galactosyltransferase
activity
G0:0042908 5
                    xenobiotic transport
G0:0032714
                    negative regulation of interleukin-5 production
GO:0032713
            5
                    negative regulation of interleukin-4 production
G0:0051525
            5
                    NFAT protein binding
                    B cell apoptotic process
G0:0001783
G0:0007035
            5
                    vacuolar acidification
G0:0030240
            5
                    skeletal muscle thin filament assembly
G0:0097186
                    amelogenesis
                    superoxide dismutase activity
GO: 0004784
            5
G0:0045334
                    clathrin-coated endocytic vesicle
                    non-canonical Wnt signaling pathway via JNK cascade
GO:0038031
G0:0032057
            5
                    negative regulation of translational initiation in response to stress
G0:0035881
           5
                    amacrine cell differentiation
G0:0045762
                    positive regulation of adenylate cyclase activity
G0:0070389
            5
                    chaperone cofactor-dependent protein refolding
G0:0045836
                    positive regulation of meiosis
G0:0045838
                    positive regulation of membrane potential
G0:2000601
                    positive regulation of Arp2/3 complex-mediated actin nucleation
                    protein-DNA complex assembly
G0:0065004
G0:0008158
                    hedgehog receptor activity
GO:0000137
                    Golgi cis cisterna
G0:0000138
                    Golgi trans cisterna
G0:0004331
                    fructose-2,6-bisphosphate 2-phosphatase activity
                    hormone-mediated apoptotic signaling pathway
G0:0008628
            5
G0:0045591
                    positive regulation of regulatory T cell differentiation
G0:0051098
                    regulation of binding
                    positive regulation of keratinocyte migration
G0:0051549
            5
G0:0010463
                    mesenchymal cell proliferation
G0:0051400
                    BH domain binding
                    phosphatase inhibitor activity
GO:0019212
            5
G0:0000303
                    response to superoxide
                    negative regulation of execution phase of apoptosis
G0:1900118
G0:0060761
                    negative regulation of response to cytokine stimulus
G0:0060763
                    mammary duct terminal end bud growth
G0:0042609
                    CD4 receptor binding
G0:0050897
                    cobalt ion binding
                    myosin heavy chain binding
G0:0032036
            5
GO:0060996
                    dendritic spine development
                    intestinal epithelial cell differentiation
G0:0060575
            5
G0:0060576
            5
                    intestinal epithelial cell development
G0:0046321
                    positive regulation of fatty acid oxidation
                    glucose import
G0:0046323
            5
G0:0002768
            5
                    immune response-regulating cell surface receptor signaling pathway
G0:0004952 5
                    dopamine neurotransmitter receptor activity
```

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G0:0035336 5
G0:0030033 5
                    long-chain fatty-acyl-CoA metabolic process
                    microvillus assembly
                    epithelial-mesenchymal cell signaling
G0:0060684 5
G0:0002181
                    cytoplasmic translation
            -5
G0:0035562
                    negative regulation of chromatin binding
                    positive regulation of mitochondrial fission
GO:0090141
G0:0032205
                    negative regulation of telomere maintenance
G0:0044233 5
                    ER-mitochondrion membrane contact site
G0:0071539
                    protein localization to centrosome
G0:2000427
                    positive regulation of apoptotic cell clearance
            5
G0:0070221
                    sulfide oxidation, using sulfide:quinone oxidoreductase
G0:0015871
                    choline transport
G0:0071280
                    cellular response to copper ion
G0:0033554
                    cellular response to stress
                    mRNA 3'-UTR AU-rich region binding
G0:0035925
G0:1903204
                    negative regulation of oxidative stress-induced neuron death
            5
                    mammary gland branching involved in thelarche
G0:0060744
G0:0050774
                    negative regulation of dendrite morphogenesis
G0:0005742
            5
                    mitochondrial outer membrane translocase complex
G0:0051823
                    regulation of synapse structural plasticity
                    renal water absorption
GO:0070295
G0:0046951
                    ketone body biosynthetic process
G0:0031904
                    endosome lumen
                    cilium or flagellum-dependent cell motility
G0:0001539
G0:0004559
            5
                    alpha-mannosidase activity
G0:0005499
                    vitamin D binding
GO:0003357
                    noradrenergic neuron differentiation
G0:0019800
                    peptide cross-linking via chondroitin 4-sulfate glycosaminoglycan
G0:0055062
                    phosphate ion homeostasis
G0:0002740
                    negative regulation of cytokine secretion involved in immune response
G0:0060736
                    prostate gland growth
G0:0035356
                    cellular triglyceride homeostasis
G0:0035357
                    peroxisome proliferator activated receptor signaling pathway
G0:0048742
            5
                    regulation of skeletal muscle fiber development
GO:0016709
            5
                    oxidoreductase activity, acting on paired donors, with incorporation or
reduction of molecular oxygen, NAD(P)H as one donor, and incorporation of one atom of oxygen
G0:0070937 5
G0:0051584 5
                    CRD-mediated mRNA stability complex
                    regulation of dopamine uptake involved in synaptic transmission
                    response to immobilization stress
G0:0035902 5
G0:0016671 5
                    oxidoreductase activity, acting on a sulfur group of donors, disulfide as
acceptor
G0:0060236 5
                    regulation of mitotic spindle organization
G0:0042129 5
G0:0010954 5
                    regulation of T cell proliferation
                    positive regulation of protein processing
G0:0043535
                    regulation of blood vessel endothelial cell migration
G0:0097342
            5
                    ripoptosome
G0:0004499
                    N,N-dimethylaniline monooxygenase activity
G0:0001517
                    N-acetylglucosamine 6-0-sulfotransferase activity
                    opioid peptide activity negative regulation of interferon-gamma-mediated signaling pathway
G0:0001515
G0:0060336
G0:0021554
                    optic nerve development
                    negative regulation of fibroblast migration nerve growth factor signaling pathway
G0:0010764
            5
G0:0038180
G0:0006398
                    histone mRNA 3'-end processing
G0:1902262
                    apoptotic process involved in patterning of blood vessels
            5
G0:0042538
                    hyperosmotic salinity response
G0:0042536
                    negative regulation of tumor necrosis factor biosynthetic process
G0:0042531
                    positive regulation of tyrosine phosphorylation of STAT protein
G0:0044241
                    lipid digestion
G0:0042989
                    sequestering of actin monomers
G0:2000177
                    regulation of neural precursor cell proliferation
            5
G0:2000178
                    negative regulation of neural precursor cell proliferation
G0:0003254
                    regulation of membrane depolarization
G0:0021960
                    anterior commissure morphogenesis
            5
G0:0045606
                    positive regulation of epidermal cell differentiation
G0:0060259
                    regulation of feeding behavior
                    cell differentiation involved in embryonic placenta development
G0:0060706
GO:0090370
                    negative regulation of cholesterol efflux
G0:0060253
                    negative regulation of glial cell proliferation
G0:0033033
            5
                    negative regulation of myeloid cell apoptotic process
                    positive regulation of mRNA splicing, via spliceosome
            5
G0:0048026
G0:0004614
                    phosphoglucomutase activity
G0:2000344
            5
                    positive regulation of acrosome reaction
GO:0001878
            5
                    response to yeast
G0:0090331 5
                    negative regulation of platelet aggregation
```

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G0:0071305 5
G0:0033234 5
                    cellular response to vitamin D
                    negative regulation of protein sumoylation
G0:0048562 5
                    embryonic organ morphogenesis
G0:0043140
                    ATP-dependent 3'-5' DNA helicase activity
            -5
G0:0005131
                    growth hormone receptor binding
G0:0050656
                    3'-phosphoadenosine 5'-phosphosulfate binding
G0:0005168
                    neurotrophin TRKA receptor binding
G0:0015057
                    thrombin receptor activity
G0:0051013
                    microtubule severing
G0:0032914
                    positive regulation of transforming growth factor betal production
            5
G0:0070245
                    positive regulation of thymocyte apoptotic process
G0:0046085
                    adenosine metabolic process
G0:0097169
                    AIM2 inflammasome complex
G0:0050792
            5
                    regulation of viral process
G0:0010917
                    negative regulation of mitochondrial membrane potential
G0:1902041 5
                    regulation of extrinsic apoptotic signaling pathway via death domain
receptors
G0:0031394 5
                    positive regulation of prostaglandin biosynthetic process
G0:0045061
                    thymic T cell selection
           5
G0:0004459
                    L-lactate dehydrogenase activity
G0:0043931
                    ossification involved in bone maturation
G0:0048048
            5
                    embryonic eye morphogenesis
G0:0004185
            5
                    serine-type carboxypeptidase activity
G0:0004679
                    AMP-activated protein kinase activity
G0:0021517
            5
                    ventral spinal cord development
G0:0046873
            5
                    metal ion transmembrane transporter activity
                    cellular response to cGMP
G0:0071321
GO:0003184
            5
                    pulmonary valve morphogenesis
G0:0003180
            5
                    aortic valve morphogenesis
G0:0042578
                    phosphoric ester hydrolase activity
G0:0050869
            5
                    negative regulation of B cell activation
GO:0086006
                    voltage-gated sodium channel activity involved in cardiac muscle cell
action potential
G0:0009804
            -5
                    coumarin metabolic process
                    protein serine/threonine phosphatase inhibitor activity
G0:0004865
G0:0097449 5
                    astrocyte projection
G0:0002328 5
G0:0048729 5
                    pro-B cell differentiation
                    tissue morphogenesis
                    B cell lineage commitment
G0:0002326 5
G0:0009113
                    purine nucleobase biosynthetic process
            5
G0:0071156
                    regulation of cell cycle arrest
                    aromatic compound catabolic process
G0:0019439
G0:0043426
                    MRF binding
            5
           5
G0:0034498
                    early endosome to Golgi transport
                    histone H3-K4 demethylation
G0:0034720
G0:0050805
            5
                    negative regulation of synaptic transmission
G0:0006657
                    CDP-choline pathway
                    ER to Golgi transport vesicle
GO:0030134
G0:0035456
                    response to interferon-beta
            5
GO:0006900
                    membrane budding
G0:0033014
                    tetrapyrrole biosynthetic process
G0:0044351
            5
                    macropinocytosis
G0:0019887
                    protein kinase regulator activity
G0:0071340
                    skeletal muscle acetylcholine-gated channel clustering
G0:1901741
            5
                    positive regulation of myoblast fusion
G0:0021796
                    cerebral cortex regionalization
G0:0045927
                    positive regulation of growth
G0:0086067
                    AV node cell to bundle of His cell communication
            5
G0:0043184
                    vascular endothelial growth factor receptor 2 binding
G0:0060485
                    mesenchyme development
GO:0006907
            5
                    pinocytosis
                    T cell proliferation involved in immune response
G0:0002309
                    positive regulation of endothelial cell chemotaxis
G0:2001028
                    establishment of T cell polarity
G0:0001768
            5
G0:0010666
                    positive regulation of cardiac muscle cell apoptotic process
G0:0035988
                    chondrocyte proliferation
G0:0008553
            5
                    hydrogen-exporting ATPase activity, phosphorylative mechanism
G0:0014894
                    response to denervation involved in regulation of muscle adaptation
G0:0072669
                    tRNA-splicing ligase complex
                    cellular response to X-ray regulation of MAP kinase activity
GO:0071481
            5
G0:0043405
            5
G0:0008762
                    UDP-N-acetylmuramate dehydrogenase activity
G0:0032405
            5
                    MutLalpha complex binding
G0:0071421
                    manganese ion transmembrane transport
G0:0019695 5
                    choline metabolic process
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G0:0016236 5
G0:0033133 5
                    macroautophagy
                    positive regulation of glucokinase activity
G0:0046599 5
                    regulation of centriole replication
G0:0043304
                    regulation of mast cell degranulation
            -5
G0:2001236
                    regulation of extrinsic apoptotic signaling pathway
                    transformed cell apoptotic process
GO:0006927
G0:0031579
                    membrane raft organization
G0:0019060
                    intracellular transport of viral protein in host cell
G0:0060956
                    endocardial cell differentiation
                    activation of JNKK activity
G0:0007256
            5
G0:0007253
                    cytoplasmic sequestering of NF-kappaB
G0:0046834
                    lipid phosphorylation
                    negative regulation of DNA endoreduplication
G0:0032876
G0:0071813
                    lipoprotein particle binding
                    negative regulation of type B pancreatic cell apoptotic process
G0:2000675
                    phosphatidylcholine-sterol O-acyltransferase activator activity
G0:0060228
            5
G0:0038170
                    somatostatin signaling pathway
                    NADPH-hemoprotein reductase activity
GO:0003958
GO:0048500
            5
                    signal recognition particle
G0:0090184
                    positive regulation of kidney development
GO:0009157
                    deoxyribonucleoside monophosphate biosynthetic process
G0:0000439
                    core TFIIH complex
            5
G0:0034452
                    dynactin binding
                    positive regulation of tissue remodeling
G0:0034105
G0:0034109
                    homotypic cell-cell adhesion
            5
G0:0033153
                    T cell receptor V(D)J recombination
                    MMXD complex
G0:0071817
G0:0032962
                    positive regulation of inositol trisphosphate biosynthetic process
            5
G0:0042255
                    ribosome assembly
G0:0043023
                    ribosomal large subunit binding
G0:0048318
            5
                    axial mesoderm development
G0:0072383
                    plus-end-directed vesicle transport along microtubule
G0:2001259
                    positive regulation of cation channel activity
G0:2001256
            5
                    regulation of store-operated calcium entry
G0:2001257
                    regulation of cation channel activity
G0:0035014
                    phosphatidylinositol 3-kinase regulator activity
G0:0031228
                    intrinsic component of Golgi membrane
G0:2000503
                    positive regulation of natural killer cell chemotaxis
G0:0050544
                    arachidonic acid binding
G0:0044319
            5
                    wound healing, spreading of cells
G0:0060972
                    left/right pattern formation
G0:0070120
                    ciliary neurotrophic factor-mediated signaling pathway
G0:0032853
                    positive regulation of Ran GTPase activity
                    positive regulation of cholesterol biosynthetic process
G0:0045542
G0:0021861
                    forebrain radial glial cell differentiation
G0:1901998
            5
                    toxin transport
G0:0045540
                    regulation of cholesterol biosynthetic process
G0:0019626
                    short-chain fatty acid catabolic process
G0:0098639
            5
                    collagen binding involved in cell-matrix adhesion
G0:0032224
                    positive regulation of synaptic transmission, cholinergic
G0:0002385
                    mucosal immune response
G0:0060372
            5
                    regulation of atrial cardiac muscle cell membrane repolarization
G0:0060373
                    regulation of ventricular cardiac muscle cell membrane depolarization
G0:0017081
                    chloride channel regulator activity
G0:0051964
            5
                    negative regulation of synapse assembly
G0:0006312
                    mitotic recombination
                    lateral loop
G0:0043219
G0:0008048
            5
                    calcium sensitive guanylate cyclase activator activity
G0:0006003
            5
                    fructose 2,6-bisphosphate metabolic process
                    negative regulation of stem cell differentiation
G0:2000737
                    optic nerve morphogenesis
GO:0021631
            -5
G0:0019907
            5
                    cyclin-dependent protein kinase activating kinase holoenzyme complex
                    proton-transporting two-sector ATPase complex, proton-transporting domain
G0:0033177
                    negative regulation of SMAD protein complex assembly
G0:0010991
G0:0044336
            5
                    canonical Wnt signaling pathway involved in negative regulation of
apoptotic process
G0:0090277 5
G0:0036006 5
                    positive regulation of peptide hormone secretion
                    cellular response to macrophage colony-stimulating factor stimulus
G0:0070100
                    negative regulation of chemokine-mediated signaling pathway
G0:0003105
            5
                    negative regulation of glomerular filtration
GO:0003100
            5
                    regulation of systemic arterial blood pressure by endothelin
G0:0060179
                    male mating behavior
                    Arp2/3 complex-mediated actin nucleation
G0:0034314
            5
G0:0097225
            5
                    sperm midpiece
                    ether lipid biosynthetic process
G0:0008611 5
```

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G0:0043620 5
                    regulation of DNA-templated transcription in response to stress
G0:0061371
                    determination of heart left/right asymmetry
                    testosterone biosynthetic process
G0:0061370 5
G0:0010837
                    regulation of keratinocyte proliferation
            5
G0:0010833
                    telomere maintenance via telomere lengthening
GO:0009374
                    biotin binding
G0:0015670
                    carbon dioxide transport
G0:1902188
                    positive regulation of viral release from host cell
G0:0070652
                    HAUS complex
G0:0004576
                    oligosaccharyl transferase activity
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G0:0002360
                    T cell lineage commitment
G0:0003923
                    GPI-anchor transamidase activity
G0:0001875
                    lipopolysaccharide receptor activity
G0:0050863
            5
                    regulation of T cell activation
                    regulation of histone deacetylation
G0:0031063
G0:0033194
            5
                    response to hydroperoxide
G0:0006525
            5
                    arginine metabolic process
G0:0005004
                    GPI-linked ephrin receptor activity
                    mitochondrial proton-transporting ATP synthase complex, coupling factor
G0:0000276 5
F(o)
G0:0050996
                    positive regulation of lipid catabolic process
G0:0010314
                    phosphatidylinositol-5-phosphate binding
            5
G0:0018206
                    peptidyl-methionine modification
G0:0004035
                    alkaline phosphatase activity
G0:0001609
            5
                    G-protein coupled adenosine receptor activity
G0:0071870
            5
                    cellular response to catecholamine stimulus
                    FHF complex
G0:0070695
G0:0051880
                    G-quadruplex DNA binding
            5
G0:0043276
                    anoikis
G0:0046219
                    indolalkylamine biosynthetic process
G0:0016926
                    protein desumoylation
            5
G0:0004551
                    nucleotide diphosphatase activity
                    endodeoxyribonuclease activity, producing 5'-phosphomonoesters
G0:0016888
GO:0014012
            5
                    peripheral nervous system axon regeneration
G0:0070849
                    response to epidermal growth factor
G0:0015277
                    kainate selective glutamate receptor activity
G0:0014909
                    smooth muscle cell migration
            5
G0:2000773
            5
                    negative regulation of cellular senescence
G0:0032591
                    dendritic spine membrane
                    integral component of mitochondrial membrane
G0:0032592
            5
G0:0035811
                    negative regulation of urine volume
                    negative regulation of renal sodium excretion
GO:0035814
G0:0035749
            5
                    myelin sheath adaxonal region
G0:0016505
            5
                    peptidase activator activity involved in apoptotic process
                    angiotensin type II receptor activity
G0:0004945
                    CTD phosphatase activity
G0:0008420
            -5
G0:0002043
            5
                    blood vessel endothelial cell proliferation involved in sprouting
angiogenesis
                    positive regulation of NK T cell activation \ensuremath{\mathsf{SUN}\text{-}\mathsf{KASH}} complex
G0:0051135 5
G0:0034993
G0:0001667 5
                    ameboidal cell migration
GO:0001661
            5
                    conditioned taste aversion
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G0:0022612
                    gland morphogenesis
G0:0022614
                    membrane to membrane docking
G0:0032747
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                    positive regulation of interleukin-23 production
GO:0018958
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                    phenol-containing compound metabolic process
G0:0045292
                    mRNA cis splicing, via spliceosome
G0:0035999
                    tetrahydrofolate interconversion
            5
G0:0044321
            5
                    response to leptin
G0:0051005
                    negative regulation of lipoprotein lipase activity
GO:0048496
            5
                    maintenance of organ identity
G0:0071504
                    cellular response to heparin
                    regulation of steroid metabolic process
G0:0019218
G0:0070083
            5
                    clathrin-sculpted monoamine transport vesicle membrane
G0:0010591
                    regulation of lamellipodium assembly
G0:0071681
                    cellular response to indole-3-methanol
                    collagen metabolic process
            5
G0:0032963
G0:0006561
            5
                    proline biosynthetic process
GO:0060077
                    inhibitory synapse
                    positive regulation of mitotic cell cycle spindle assembly checkpoint
G0:0090267
            5
G0:0017145
            5
                    stem cell division
G0:0001642
                    group III metabotropic glutamate receptor activity
G0:0045008
            5
                    depyrimidination
G0:0070431
                    nucleotide-binding oligomerization domain containing 2 signaling pathway
G0:0072498 5
                    embryonic skeletal joint development
```

```
G0:0016174 5
                    NAD(P)H oxidase activity
G0:0016298
                    lipase activity
G0:0005858 5
                    axonemal dynein complex
G0:0000710
                    meiotic mismatch repair
           -5
G0:0046703
                    natural killer cell lectin-like receptor binding
G0:0030275
                    LRR domain binding
G0:0035020
                    regulation of Rac protein signal transduction
G0:0015238
                    drug transmembrane transporter activity
                    double-stranded telomeric DNA binding
G0:0003691
G0:0072162
                    metanephric mesenchymal cell differentiation
            5
G0:0005436
                    sodium:phosphate symporter activity
G0:0090383
                    phagosome acidification
G0:0003334
                    keratinocyte development
                   posttranscriptional regulation of gene expression
G0:0010608
            5
G0:0001505
                    regulation of neurotransmitter levels
G0:0071910
            5
                    determination of liver left/right asymmetry
                   regulation of DNA damage checkpoint
G0:2000001
G0:0042482
                    positive regulation of odontogenesis
                   auditory receptor cell stereocilium organization
GO:0060088
            5
GO:0060056
                    mammary gland involution
                    UMP salvage
G0:0044206
G0:0060836
                    lymphatic endothelial cell differentiation
            5
G0:0003840
                    gamma-glutamyltransferase activity
G0:0003846
                    2-acylglycerol 0-acyltransferase activity
G0:0019530
            5
                   taurine metabolic process
G0:0051451
                    myoblast migration
G0:0002686
                   negative regulation of leukocyte migration
GO:0006172
                   ADP biosynthetic process
G0:0048672
                    positive regulation of collateral sprouting
G0:0046813
                    receptor-mediated virion attachment to host cell
G0:0042765
                   GPI-anchor transamidase complex
G0:0030263
                   apoptotic chromosome condensation
GO:0031088
                   platelet dense granule membrane
                   apoptotic nuclear changes
GO:0030262
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G0:0043985
                    histone H4-R3 methylation
G0:0032060
                   bleb assembly
                   maintenance of DNA repeat elements
G0:0043570
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G0:0071028
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                   nuclear mRNA surveillance
G0:0035721
                    intraciliary retrograde transport
G0:0060033
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                    anatomical structure regression
G0:0050913
            5
                    sensory perception of bitter taste
GO:0005078
                    MAP-kinase scaffold activity
G0:0048248
            5
                   CXCR3 chemokine receptor binding
G0:0045110
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                    intermediate filament bundle assembly
                   enoyl-CoA hydratase activity
G0:0004300
                   alpha-N-acetylneuraminate alpha-2,8-sialyltransferase activity
G0:0003828
            5
G0:0033132
                    negative regulation of glucokinase activity
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GO:0016500
G0:0048012
                    hepatocyte growth factor receptor signaling pathway
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G0:0045545
                    syndecan binding
G0:0071569
                   protein ufmylation
GO:0016139
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                   glycoside catabolic process
GO:0007021
                   tubulin complex assembly
                   post-chaperonin tubulin folding pathway
G0:0007023
GO: 1901386
            5
                   negative regulation of voltage-gated calcium channel activity
                   positive regulation of platelet activation
G0:0010572
            5
G0:0035068
                   micro-ribonucleoprotein complex
G0:0010890
            5
                   positive regulation of sequestering of triglyceride
                   positive regulation of triglyceride catabolic process
G0:0010898
            5
                   UDP-N-acetylglucosamine biosynthetic process
GO:0006048
GO:0001520
                   outer dense fiber
            5
G0:0036128
                   CatSper complex
G0:0010649
                    regulation of cell communication by electrical coupling
G0:0018095
            5
                    protein polyglutamylation
G0:0018894
                    dibenzo-p-dioxin metabolic process
G0:2000049
                   positive regulation of cell-cell adhesion mediated by cadherin
                   negative regulation of excitatory postsynaptic membrane potential
G0:0090394
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G0:0038027
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                    apolipoprotein A-I-mediated signaling pathway
G0:0032049
                    cardiolipin biosynthetic process
GO:0042105
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                    alpha-beta T cell receptor complex
G0:0021587
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                    cerebellum morphogenesis
G0:0030917
                   midbrain-hindbrain boundary development
G0:0043619
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                   regulation of transcription from RNA polymerase II promoter in response to
oxidative stress
G0:0060541 5
                    respiratory system development
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G0:0051256 5
                    spindle midzone assembly involved in mitosis
G0:0031053
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G0:0008142
                    oxysterol binding
G0:0004322
                    ferroxidase activity
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G0:0045179
                    apical cortex
G0:0015355
                    secondary active monocarboxylate transmembrane transporter activity
GO:0043462
                    regulation of ATPase activity
G0:0007006
                    mitochondrial membrane organization
G0:0030210
                    heparin biosynthetic process
G0:0060206
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                    estrous cycle phase
G0:0010216
                    maintenance of DNA methylation
G0:0050764
                    regulation of phagocytosis
G0:0003344
                    pericardium morphogenesis
G0:0008467
                    [heparan sulfate]-glucosamine 3-sulfotransferase 1 activity
G0:0046950
                    cellular ketone body metabolic process
G0:0002430
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                    complement receptor mediated signaling pathway
G0:0030970
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                    retrograde protein transport, ER to cytosol
G0:0051798
                    positive regulation of hair follicle development
G0:0006851
            5
                    mitochondrial calcium ion transport
G0:0032233
                    positive regulation of actin filament bundle assembly
G0:0032426
                    stereocilium bundle tip
GO:0003407
                    neural retina development
G0:0035912
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                    dorsal aorta morphogenesis
G0:0030893
                    meiotic cohesin complex
G0:0030891
            5
                    VCB complex
G0:0008320
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                    positive regulation of melanocyte differentiation
G0:0045636
G0:0016907
                    G-protein coupled acetylcholine receptor activity
G0:0006220
                    pyrimidine nucleotide metabolic process
G0:0006222
                    UMP biosynthetic process
G0:0046785
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                    microtubule polymerization
G0:0042421
                    norepinephrine biosynthetic process
GO:0060385
                    axonogenesis involved in innervation
GO:0007598
            5
                    blood coagulation, extrinsic pathway
G0:0000712
                    resolution of meiotic recombination intermediates
                    positive regulation of synaptic plasticity
G0:0031915
                    negative regulation of interleukin-6 biosynthetic process
G0:0045409
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G0:0021540
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                    corpus callosum morphogenesis
G0:0016098
                    monoterpenoid metabolic process
                    phosphatidylinositol-4,5-bisphosphate 3-kinase activity
G0:0046934
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G0:0060509
            5
                    Type I pneumocyte differentiation
G0:0060501
                    positive regulation of epithelial cell proliferation involved in lung
morphogenesis
G0:0042503
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                    tyrosine phosphorylation of Stat3 protein
G0:0005143
                    interleukin-12 receptor binding
G0:0031465
           -5
                    Cul4B-RING E3 ubiquitin ligase complex
G0:0022038
                    corpus callosum development
G0:0051026 5
                    chiasma assembly
G0:0048515
                    spermatid differentiation
G0:0014807
                    regulation of somitogenesis
                    negative regulation of cell motility
G0:2000146 5
GO:0021955
            5
                    central nervous system neuron axonogenesis
G0:0072520
            5
                    seminiferous tubule development
G0:0097119
                    postsynaptic density protein 95 clustering
GO:0031694
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                    alpha-2A adrenergic receptor binding
G0:0097371
            5
                    MDM2/MDM4 family protein binding
G0:0030618 5
                    transforming growth factor beta receptor, pathway-specific cytoplasmic
mediator activity
G0:1902231 5
                    positive regulation of intrinsic apoptotic signaling pathway in response
to DNA damage
G0:0042761 5
G0:0045056 5
                    very long-chain fatty acid biosynthetic process
                    transcytosis
G0:0042760 5
                    very long-chain fatty acid catabolic process
G0:0051023
            5
                    regulation of immunoglobulin secretion
G0:0000730
                    DNA recombinase assembly
G0:0052696
                    flavonoid glucuronidation
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G0:0052697
                    xenobiotic glucuronidation
G0:0034969
            -5
                    histone arginine methylation
G0:0015696
                    ammonium transport
                    regulation of cell communication by electrical coupling involved in
G0:1901844
            5
cardiac conduction
G0:0006384 5
                   transcription initiation from RNA polymerase III promoter
G0:0071803
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                    positive regulation of podosome assembly
G0:0005127
                    ciliary neurotrophic factor receptor binding
G0:0044245 5
                    polysaccharide digestion
```

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G0:0002830 5
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                    positive regulation of type 2 immune response
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                    endodermal cell fate specification
G0:0001714 5
G0:0071786
                    endoplasmic reticulum tubular network organization
            -5
G0:0043457
                    regulation of cellular respiration
                    apolipoprotein A-I receptor binding
G0:0034191
GO:0051782
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                    negative regulation of cell division
G0:0003266
            4
                    regulation of secondary heart field cardioblast proliferation
G0:0046651
                    lymphocyte proliferation
G0:1902219 4
                    negative regulation of intrinsic apoptotic signaling pathway in response
to osmotic stress
G0:0048386 4
                    positive regulation of retinoic acid receptor signaling pathway
G0:0048039
                    ubiquinone binding
G0:0004663 4
                    Rab geranylgeranyltransferase activity
G0:0070061 4
                    fructose binding
G0:2000330
                    positive regulation of T-helper 17 cell lineage commitment negative regulation of mature B cell apoptotic process
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G0:0002906
            4
G0:0033599
                    regulation of mammary gland epithelial cell proliferation
                    T-helper cell differentiation
GO: 0042093
            4
G0:0042092
            4
                    type 2 immune response
                    activin receptor activity, type I
G0:0016361
                    flavonoid metabolic process
G0:0009812
            4
G0:0070886
            4
                    positive regulation of calcineurin-NFAT signaling cascade
G0:0001780
                    neutrophil homeostasis
G0:0010996
            4
                    response to auditory stimulus
G0:0042168
            4
                    heme metabolic process
G0:0009103
                    lipopolysaccharide biosynthetic process
GO:0003886
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                    DNA (cytosine-5-)-methyltransferase activity
G0:0001738
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                    morphogenesis of a polarized epithelium
                    galactosylceramide sulfotransferase activity
G0:0001733
G0:0001732
                    formation of translation initiation complex
G0:0001730
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                    2'-5'-oligoadenylate synthetase activity
G0:0036155
                    acylglycerol acyl-chain remodeling
                    negative regulation of intracellular transport
GO:0032387
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G0:0016624 4
                    oxidoreductase activity, acting on the aldehyde or oxo group of donors,
disulfide as acceptor
G0:0014842 4
G0:0045656 4
                    regulation of satellite cell proliferation
                    negative regulation of monocyte differentiation
G0:1902236 4
                    negative regulation of intrinsic apoptotic signaling pathway in response
to endoplasmic reticulum stress
G0:0003918 4
                    DNA topoisomerase type II (ATP-hydrolyzing) activity
                    positive regulation of transcription from RNA polymerase II promoter in
G0:0036003 4
response to stress
                    phosphoserine binding
G0:0050815 4
G0:0030123 4
                    AP-3 adaptor complex
G0:0006910 4
G0:0000778 4
                    phagocytosis, recognition
                    condensed nuclear chromosome kinetochore
                    condensed chromosome, centromeric region
GO:0000779
GO:0000774
                    adenyl-nucleotide exchange factor activity
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G0:0060903
            4
                    positive regulation of meiosis I
G0:0010735
                    positive regulation of transcription via serum response element binding
G0:0046848
            4
                    hydroxyapatite binding
G0:0004515
            4
                    nicotinate-nucleotide adenylyltransferase activity
G0:2000641
                    regulation of early endosome to late endosome transport metanephric part of ureteric bud development
GO:0035502
            4
G0:0034056
            4
                    estrogen response element binding
G0:2000065
                    negative regulation of cortisol biosynthetic process
G0:0035630
            4
                    bone mineralization involved in bone maturation
G0:0017034
            4
                    Rap guanyl-nucleotide exchange factor activity
G0:0043171
                    peptide catabolic process
GO:0097452
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                    GAIT complex
G0:0060129
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                    thyroid-stimulating hormone-secreting cell differentiation
                    vesicle fusion with Golgi apparatus
G0:0048280
G0:0051048
                    negative regulation of secretion
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G0:2001030
            4
                    negative regulation of cellular glucuronidation
G0:0006474
                    N-terminal protein amino acid acetylation
            4
GO:0001757
                    somite specification
                    regulation of removal of superoxide radicals
G0:2000121
            4
G0:0032417
                    positive regulation of sodium:proton antiporter activity
G0:0046545
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                    development of primary female sexual characteristics
G0:0016602
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                    CCAAT-binding factor complex
G0:0008568
                    microtubule-severing ATPase activity
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                    response to interleukin-6
G0:0042063
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                    gliogenesis
G0:2000785 4
                    regulation of autophagic vacuole assembly
```

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G0:0070294 4
G0:0070290 4
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                    N-acylphosphatidylethanolamine-specific phospholipase D activity
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                    histamine secretion by mast cell
G0:0002125
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                    maternal aggressive behavior
G0:0031698 4
                    beta-2 adrenergic receptor binding
G0:0019158
                    mannokinase activity
G0:0035469
           4
                    determination of pancreatic left/right asymmetry
G0:0045039 4
                    protein import into mitochondrial inner membrane
                   negative regulation of macrophage apoptotic process
G0:2000110 4
G0:0006930 4
G0:0006933 4
                    substrate-dependent cell migration, cell extension
                    negative regulation of cell adhesion involved in substrate-bound cell
migration
G0:0000791 4
G0:0031503 4
                    euchromatin
                    protein complex localization
G0:0044341
                    sodium-dependent phosphate transport
                    cardiac muscle cell fate commitment
G0:0060923
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                    positive regulation of transcription of Notch receptor target
G0:0007221
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                    regulation of epithelial to mesenchymal transition
GO:0010717
G0:0010716
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                    negative regulation of extracellular matrix disassembly
G0:0019673
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                    GDP-mannose metabolic process
G0:0002943
                    tRNA dihydrouridine synthesis
G0:0007320
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                    insemination
G0:0016013
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                    syntrophin complex
G0:0046449
                    creatinine metabolic process
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                    serine C-palmitoyltransferase complex
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G0:0042587
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                    glycogen granule
G0:0042588 4
                    zymogen granule
G0:0006499
                    N-terminal protein myristoylation
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G0:0015807
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G0:0035613
                    RNA stem-loop binding
G0:0072050
                    S-shaped body morphogenesis
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                    canalicular bile acid transport
G0:0015722
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G0:0010664
                    negative regulation of striated muscle cell apoptotic process
G0:0035195
                    gene silencing by miRNA
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G0:0009143
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                    nucleoside triphosphate catabolic process
G0:0002455
                    humoral immune response mediated by circulating immunoglobulin
                    telomerase activity
G0:0003720
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G0:0006533
           4
                    aspartate catabolic process
G0:0001771
                    immunological synapse formation
G0:0097056
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                    selenocysteinyl-tRNA(Sec) biosynthetic process
G0:0003229
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                    ventricular cardiac muscle tissue development
G0:0008308
                    voltage-gated anion channel activity
G0:0042806
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                    fucose binding
G0:0050851 4
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G0:0071141
                    SMAD protein complex
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G0:0002142
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G0:0097084
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                    vascular smooth muscle cell development
G0:0030160
                    GKAP/Homer scaffold activity
G0:0005087
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                    Ran guanyl-nucleotide exchange factor activity
                    vacuolar proton-transporting V-type ATPase, V0 domain
GO:0000220
           4
G0:2001224
                    positive regulation of neuron migration
G0:0005332
           4
                    gamma-aminobutyric acid:sodium symporter activity
G0:0005337
           4
                    nucleoside transmembrane transporter activity
G0:0042634
                    regulation of hair cycle
                    cytokinesis checkpoint
G0:0031565
           4
GO:0018879
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                    biphenyl metabolic process
                    mediator complex binding
G0:0036033
G0:0032864
           4
                    activation of Cdc42 GTPase activity
G0:0018685 4
                    alkane 1-monooxygenase activity
G0:0038110
                    interleukin-2-mediated signaling pathway
G0:0045577
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                    regulation of B cell differentiation
                    cardiac neural crest cell development involved in outflow tract
G0:0061309
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morphogenesis
G0:0042035 4
                    regulation of cytokine biosynthetic process
G0:0042036
                    negative regulation of cytokine biosynthetic process
G0:0002682 4
                    regulation of immune system process
G0:0005652
           4
                    nuclear lamina
G0:0060164 4
                    regulation of timing of neuron differentiation
G0:0048791
                    calcium ion-dependent exocytosis of neurotransmitter
G0:0016936
           4
                    galactoside binding
G0:0000447 4
                    endonucleolytic cleavage in ITS1 to separate SSU-rRNA from 5.8S rRNA and
LSU-rRNA from tricistronic rRNA transcript (SSU-rRNA, 5.8S rRNA, LSU-rRNA)
                   MIS12/MIND type complex
G0:0000444 4
G0:0032451 4
                   demethylase activity
G0:0032455 4
                   nerve growth factor processing
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G0:0010529 4
G0:0033146 4
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                    regulation of intracellular estrogen receptor signaling pathway
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                   GMP metabolic process
G0:0046033
                   AMP metabolic process
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G0:0042407
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                    cristae formation
G0:0035799
                   ureter maturation
                   negative regulation of transcription factor import into nucleus
G0:0042992
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G0:0035426
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                   extracellular matrix-cell signaling
                   negative regulation of low-density lipoprotein particle clearance
G0:0010989
G0:0031545
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                    peptidyl-proline 4-dioxygenase activity
G0:0090031
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                    NEDD8 ligase activity
G0:0044309
                   neuron spine
G0:0008649
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                    rRNA methyltransferase activity
G0:0060100
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G0:0060005
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                    vestibular reflex
G0:0010940
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                    positive regulation of necrotic cell death
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G0:0035650
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G0:0005638
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                   lamin filament
G0:0051919
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                    positive regulation of fibrinolysis
G0:0006726
                   eye pigment biosynthetic process
G0:2001056
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                   positive regulation of cysteine-type endopeptidase activity
G0:0015079
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                    potassium ion transmembrane transporter activity
                    regulation of synaptic growth at neuromuscular junction
G0:0008582
                   DNA topoisomerase type I activity
GO:0003917
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G0:0070728
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                    leucine binding
G0:2000096
                    positive regulation of Wnt signaling pathway, planar cell polarity pathway
G0:0015245
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                    fatty acid transporter activity
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                    second-messenger-mediated signaling
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                    regulation of platelet activation
                   regulation of intestinal cholesterol absorption
GO:0030300
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                    regulation of vascular smooth muscle contraction
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                    metanephric ascending thin limb development
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receptor activity
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G0:0004396 4
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G0:0044323 4
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G0:0044320
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                    cellular response to leptin stimulus
G0:0007288
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                    sperm axoneme assembly
G0:0070213
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                   protein auto-ADP-ribosylation
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G0:0032827
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immune response
G0:0033522 4
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G0:1901990
                    regulation of mitotic cell cycle phase transition
G0:0060439 4
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                    regulation of centrosome duplication
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                    L-cystine transport
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                   negative regulation of centrosome duplication
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GO:0008330
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                   protein tyrosine/threonine phosphatase activity
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                   atrial septum primum morphogenesis
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                    axon midline choice point recognition
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                   chemokine binding
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                    cellular response to osmotic stress
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G0:0046696
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                    prostaglandin receptor activity
G0:0004958
                   prostaglandin F receptor activity
G0:0032269
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                   negative regulation of cellular protein metabolic process
GO:0060669
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                   embryonic placenta morphogenesis
G0:0031597 4
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G0:0048341 4
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                    menstrual cycle phase
G0:0051101 4
                    regulation of DNA binding
G0:0051450 4
                    myoblast proliferation
G0:0034711
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                    inhibin binding
G0:0032777
                    Piccolo NuA4 histone acetyltransferase complex
G0:0032808
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                    lacrimal gland development
G0:0008626
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                    granzyme-mediated apoptotic signaling pathway
G0:0000815
                    ESCRT III complex
G0:0070461
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                    SAGA-type complex
G0:0042058
           4
                    regulation of epidermal growth factor receptor signaling pathway
                    negative regulation of serine-type endopeptidase activity
G0:1900004
G0:0034618
                    arginine binding
G0:0034349
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                    glial cell apoptotic process
G0:0005947
                    mitochondrial alpha-ketoglutarate dehydrogenase complex
G0:0071558
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                    histone demethylase activity (H3-K27 specific)
G0:0014028
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                    notochord formation
GO:0060415
                    muscle tissue morphogenesis
                    mRNA 3'-splice site recognition
GO:0000389
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G0:0014009
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                    PH domain binding
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G0:0004720
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                    protein-lysine 6-oxidase activity
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                    membrane repolarization
G0:0043515
                    kinetochore binding
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                    fructose 1,6-bisphosphate metabolic process
G0:0032348
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                    negative regulation of aldosterone biosynthetic process
G0:0019208
                    phosphatase regulator activity
GO:0010586
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                    miRNA metabolic process
G0:0003747
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                    translation release factor activity
G0:0070324
                    thyroid hormone binding
                    very-low-density lipoprotein particle receptor binding
G0:0070326
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                    drug catabolic process
G0:0048859
                    formation of anatomical boundary
GO:0035771
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                    interleukin-4-mediated signaling pathway
G0:0047631
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                    ADP-ribose diphosphatase activity
G0:0042420
                    dopamine catabolic process
G0:0031077
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                    post-embryonic camera-type eye development
G0:0031256
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                    leading edge membrane
                    cardioblast differentiation
G0:0010002
GO: 0007442
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                    hindgut morphogenesis
                    positive regulation of follicle-stimulating hormone secretion
G0:0046881
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GO:0043631
                    RNA polyadenylation
G0:0060011
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                    Sertoli cell proliferation
G0:0060546
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                    negative regulation of necroptotic process
G0:0004064
                    arylesterase activity
G0:0000836
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                    Hrdlp ubiquitin ligase complex
G0:0019693
            4
                    ribose phosphate metabolic process
G0:0033088
                    negative regulation of immature T cell proliferation in thymus
                    regulation of T cell differentiation in thymus
G0:0033081
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G0:0033085
           4
                    negative regulation of T cell differentiation in thymus
G0:0032137
                    guanine/thymine mispair binding
G0:0032133
           4
                    chromosome passenger complex intermediate-density lipoprotein particle
G0:0034363
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G0:0005826
                    actomyosin contractile ring
G0:0051464
                    positive regulation of cortisol secretion
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                    histone pre-mRNA DCP binding
G0:0071208
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G0:0005111
                    type 2 fibroblast growth factor receptor binding
G0:0071205
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                    protein localization to juxtaparanode region of axon
G0:0006290
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                    pyrimidine dimer repair
G0:0072557
                    IPAF inflammasome complex
GO:0030289
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                    protein phosphatase 4 complex
G0:0097491
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                    sympathetic neuron projection guidance
                    regulation of cAMP-mediated signaling
GO:0043949
G0:0004528
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                    phosphodiesterase I activity
G0:0014063
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                    negative regulation of serotonin secretion
G0:0060298
                    positive regulation of sarcomere organization
G0:0015220
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                    choline transmembrane transporter activity
GO:0007501
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                    mesodermal cell fate specification
G0:0008298
                    intracellular mRNA localization
G0:0071922
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                    regulation of cohesin localization to chromatin
                    regulation of mitochondrion organization
G0:0010821
            4
G0:0001821
                    histamine secretion
                    positive regulation of mesenchymal stem cell differentiation
G0:2000741
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G0:0035845
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                    photoreceptor cell outer segment organization
G0:2000630 4
                    positive regulation of miRNA metabolic process
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G0:0042159 4
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                    small conductance calcium-activated potassium channel activity
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                    histone dephosphorylation
G0:1901031
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                    regulation of response to reactive oxygen species
G0:0031014
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                    1-alkyl-2-acetylglycerophosphocholine esterase activity
GO:0003847
G0:0017150
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                    tRNA dihydrouridine synthase activity
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                    mature dendritic cell differentiation
                    regulation of ER to Golgi vesicle-mediated transport
G0:0060628 4
                    maturation of SSU-rRNA
G0:0030490
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G0:0005025
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                    transforming growth factor beta receptor activity, type I
G0:0044387
                    negative regulation of protein kinase activity by regulation of protein
phosphorylation
G0:0045123
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                    cellular extravasation
                    thioredoxin peroxidase activity
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G0:0006824
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                    cobalt ion transport
G0:0003854 4
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G0:0033063 4
                    cardiac right ventricle formation
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G0:0010424 4
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G0:0033601 4
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G0:0050693
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                    LBD domain binding
G0:0005849
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                    mRNA cleavage factor complex
                    regulation of odontogenesis
G0:0042481
GO:0035520
            4
                    monoubiquitinated protein deubiquitination
G0:0060455
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                    negative regulation of gastric acid secretion
                    positive regulation of cardiac muscle contraction
G0:0060452
                    positive regulation of CD4-positive, alpha-beta T cell differentiation
G0:0043372
            4
G0:0043374
            4
                    CD8-positive, alpha-beta T cell differentiation
G0:0000347
                    THO complex
G0:0006015
                    5-phosphoribose 1-diphosphate biosynthetic process
G0:0072107
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                    positive regulation of ureteric bud formation
G0:0006771
                    riboflavin metabolic process
GO:0010638
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                    positive regulation of organelle organization
G0:0035869
            4
                    ciliary transition zone
G0:0034497
                    protein localization to pre-autophagosomal structure
G0:0016776
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                    phosphotransferase activity, phosphate group as acceptor
G0:0000974
            4
                    Prp19 complex
G0:0016557
                    peroxisome membrane biogenesis
GO:0033299
                    secretion of lysosomal enzymes
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G0:0019869
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                    chloride channel inhibitor activity
                    intraciliary transport involved in cilium morphogenesis
G0:0035735
                    convergent extension involved in axis elongation
G0:0060028
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G0:0002018
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                    renin-angiotensin regulation of aldosterone production
G0:0048278
                    vesicle docking
G0:0008170
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                    N-methyltransferase activity
G0:0048273
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                    mitogen-activated protein kinase p38 binding
G0:0003836
                    beta-galactoside (CMP) alpha-2,3-sialyltransferase activity
                    NADPH oxidation
G0:0070995
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G0:0030578
            4
                    PML body organization
G0:0033591
                    response to L-ascorbic acid
G0:0044194
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G0:0005862
                    muscle thin filament tropomyosin
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G0:0003696 4
                    satellite DNA binding
G0:0033622 4
G0:0033625 4
                    integrin activation
                    positive regulation of integrin activation
G0:0030023 4
                    extracellular matrix constituent conferring elasticity
G0:0061030 4
                    epithelial cell differentiation involved in mammary gland alveolus
development
G0:0061031 4
                    endodermal digestive tract morphogenesis
G0:0006072 4
G0:0070231 4
                    glycerol-3-phosphate metabolic process
                    T cell apoptotic process
G0:0000090 4
                    mitotic anaphase
G0:0038033 4
                    positive regulation of endothelial cell chemotaxis by VEGF-activated
vascular endothelial growth factor receptor signaling pathway
G0:0016714 4
                    oxidoreductase activity, acting on paired donors, with incorporation or
reduction of molecular oxygen, reduced pteridine as one donor, and incorporation of one atom
of oxygen
G0:0097066 4
                    response to thyroid hormone
G0:0045833 4
G0:0006449 4
                    negative regulation of lipid metabolic process
                    regulation of translational termination
G0:0034061 4
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G0:0032190 4
                    DNA polymerase activity
                    IMP salvage
                    acrosin binding
G0:0071557 4
                    histone H3-K27 demethylation
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G0:0015101 4
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                   organic cation transmembrane transporter activity
                   response to transforming growth factor beta
G0:0051409 4
                   response to nitrosative stress
                   negative regulation of membrane protein ectodomain proteolysis
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G0:0008745
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                   N-acetylmuramoyl-L-alanine amidase activity
G0:1901642
                   nucleoside transmembrane transport
G0:0072558
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                   NLRP1 inflammasome complex
G0:0006273
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                   lagging strand elongation
                   N-acetylneuraminate metabolic process
G0:0006054
G0:0060998
           4
                   regulation of dendritic spine development
G0:0060992
           4
                   response to fungicide
                   cilium organization
G0:0044782
G0:0046320
                   regulation of fatty acid oxidation
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                   response to type I interferon
G0:0034340
           4
G0:0034617
                   tetrahydrobiopterin binding
                   positive regulation of telomerase activity
G0:0051973
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G0:0060688
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                   regulation of morphogenesis of a branching structure
                   negative regulation of prostatic bud formation
GO:0060686
                   type 4 melanocortin receptor binding
GO:0031782
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G0:0072086 4
                   specification of loop of Henle identity
G0:0008865 4
                   fructokinase activity
G0:0031433
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                   telethonin binding
G0:0052848 4
                   inositol-3,5-bisdiphosphate-2,3,4,6-tetrakisphosphate 5-diphosphatase
activity
G0:0022009 4
                   central nervous system vasculogenesis
G0:0032206
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                   positive regulation of telomere maintenance
G0:0032098
                   regulation of appetite
G0:0010193
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                   response to ozone
G0:0016503
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                   pheromone receptor activity
G0:0014832
                   urinary bladder smooth muscle contraction
G0:0050689
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                   negative regulation of defense response to virus by host
G0:0051560
           4
                   mitochondrial calcium ion homeostasis
G0:0071532
                   ankyrin repeat binding
                   regulation of bone remodeling
GO:0046850
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G0:0006545
           4
                   glycine biosynthetic process
G0:2000780
                   negative regulation of double-strand break repair
G0:0006547
           4
                   histidine metabolic process
G0:0051387
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                   negative regulation of neurotrophin TRK receptor signaling pathway
                   positive regulation of T cell anergy
G0:0002669
G0:0031848
                   protection from non-homologous end joining at telomere
           4
G0:0060743
           4
                   epithelial cell maturation involved in prostate gland development
                   mitochondrial respiratory chain complex II
G0:0005749
G0:1990381
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                   ubiquitin-specific protease binding
G0:0010669
           4
                   epithelial structure maintenance
G0:0004169
                   dolichyl-phosphate-mannose-protein mannosyltransferase activity
G0:2000651
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                   positive regulation of sodium ion transmembrane transporter activity
G0:0031062
           4
                   positive regulation of histone methylation
G0:0055077
                   gap junction hemi-channel activity
G0:0005497
           4
                   androgen binding
G0:0045415
                   negative regulation of interleukin-8 biosynthetic process
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G0:0032549
                   ribonucleoside binding
G0:0032543
           4
                   mitochondrial translation
G0:0019805
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                   quinolinate biosynthetic process
G0:0002551
                   mast cell chemotaxis
G0:0015936
                   coenzyme A metabolic process
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G0:0021798
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                   forebrain dorsal/ventral pattern formation
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                   neural plate morphogenesis
G0:0060512
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                   prostate gland morphogenesis
G0:0015347
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                   sodium-independent organic anion transmembrane transporter activity
G0:0042518
                   negative regulation of tyrosine phosphorylation of Stat3 protein
                   hypoxanthine salvage
GO:0043103
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G0:0005176
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                   ErbB-2 class receptor binding
                   growth factor receptor binding
GO:0070851
G0:0070938
           4
                   contractile ring
G0:0070934
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                   CRD-mediated mRNA stabilization
G0:0009605
                   response to external stimulus
                   sodium-dependent phosphate transmembrane transporter activity
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GO:0015321
G0:0036101
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                   leukotriene B4 catabolic process
G0:0032489
                   regulation of Cdc42 protein signal transduction
G0:0021943
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                   formation of radial glial scaffolds
G0:0021940
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                   positive regulation of cerebellar granule cell precursor proliferation
G0:0045627
                   positive regulation of T-helper 1 cell differentiation
G0:0043248
           4
                   proteasome assembly
                   positive regulation of secondary heart field cardioblast proliferation
G0:0072513
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G0:0097120 4
                   receptor localization to synapse
```

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G0:0010957 4
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                    negative regulation of vitamin D biosynthetic process
                    fibroblast proliferation
G0:0043242 4
                    negative regulation of protein complex disassembly
G0:0033553
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G0:0004144
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                    diacylglycerol O-acyltransferase activity
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GO: 1903077
G0:0070053
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                    thrombospondin receptor activity
G0:2000369
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                    regulation of clathrin-mediated endocytosis
                    midbrain-hindbrain boundary morphogenesis
G0:0021555
                    olfactory bulb interneuron differentiation
G0:0021889
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G0:0060486
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                    Clara cell differentiation
                    negative regulation of sodium ion transport
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                    synaptic vesicle targeting
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G0:0090170
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                    regulation of Golgi inheritance
                    trachea cartilage morphogenesis
G0:0060535
G0:0045986
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                    negative regulation of smooth muscle contraction
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                    regulation of circadian sleep/wake cycle, sleep
G0:0045182
                    translation regulator activity
GO:0004826
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                    phenylalanine-tRNA ligase activity
                    regulation of pathway-restricted SMAD protein phosphorylation
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                    negative regulation of amyloid precursor protein biosynthetic process
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G0:0042982
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                    amyloid precursor protein metabolic process
G0:0010155
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                    regulation of proton transport
                    heterotrimeric G-protein binding
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G0:0008392
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                    arachidonic acid epoxygenase activity
G0:0044117
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                    growth of symbiont in host
G0:0036120 4
                    cellular response to platelet-derived growth factor stimulus
G0:0032970
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                    regulation of actin filament-based process
G0:0071797
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                    LUBAC complex
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involved in myocardial precursor cell differentiation
                    positive regulation of microtubule depolymerization
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G0:0002281
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G0:0045047
                    protein targeting to ER
GO:0006949
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                    syncytium formation
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                    mRNA 5'-UTR binding
                    positive regulation of chemokine (C-X-C motif) ligand 2 production
GO: 2000343
                    negative regulation of plasma membrane long-chain fatty acid transport
G0:0010748
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G0:0035174
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                    histone serine kinase activity
                    negative regulation of transcription from RNA polymerase II promoter in
G0:0061428 4
response to hypoxia
G0:0042089 4
                    cytokine biosynthetic process
G0:0005134 4
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                    N-acetyllactosamine synthase activity
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                    entrainment of circadian clock
G0:0009648
                    photoperiodism
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GO:0003896
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                    DNA primase activity
G0:0010715
                    regulation of extracellular matrix disassembly
GO:0000109
           4
                    nucleotide-excision repair complex
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                    L-cystine transmembrane transporter activity
GO:0003279
                    cardiac septum development
GO:0019896
           4
                    axon transport of mitochondrion
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                    calcineurin complex
                    circadian regulation of translation
G0:0097167
                    regulation of developmental process
G0:0050793
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G0:0010916
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                    negative regulation of very-low-density lipoprotein particle clearance
G0:0002118
                    aggressive behavior
                    N-acetylgalactosamine 4-0-sulfotransferase activity
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GO:0001537
G0:0031821
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                    G-protein coupled serotonin receptor binding
G0:0045063
                    T-helper 1 cell differentiation
G0:0045064
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                    T-helper 2 cell differentiation
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                    regulation of viral genome replication
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                    positive regulation of exit from mitosis
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                    response to ether
G0:0021516 4
                    dorsal spinal cord development
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                    negative regulation of T cell mediated cytotoxicity
                    regulation of receptor recycling
G0:0001919 4
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                    regulation of activin receptor signaling pathway
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                    epidermal growth factor-activated receptor transactivation by G-protein
coupled receptor signaling pathway
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                    activation of store-operated calcium channel activity
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action potential repolarization
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                    osteoblast fate commitment
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G0:0070513 4
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                    regulation of tumor necrosis factor-mediated signaling pathway
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G0:0042723
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                    smooth endoplasmic reticulum membrane
G0:0006163
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                    negative regulation of macrophage cytokine production
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                    phosphatidylserine biosynthetic process
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                    phosphatidylserine metabolic process
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                    malic enzyme activity
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                    dolichyl diphosphate biosynthetic process
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                    cell differentiation in hindbrain
G0:0051222
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                    negative regulation of protein transport
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class I
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G0:0021797 4
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                    positive regulation of dendritic cell chemotaxis
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                    regulation of insulin receptor signaling pathway
GO:0002159
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                    desmosome assembly
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                    neurofibrillary tangle
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                    lipase binding
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                    sphingosine metabolic process
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                    nuclear nucleosome
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                    spindle checkpoint
G0:0007258
                    JUN phosphorylation
G0:0070141
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                    tail-anchored membrane protein insertion into ER membrane
G0:0008063 4
                    Toll signaling pathway
G0:0045569
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                    TRAIL binding
G0:0061333
           4
                    renal tubule morphogenesis
G0:0047057 4
                    vitamin-K-epoxide reductase (warfarin-sensitive) activity
```

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                    compact myelin
                    venous blood vessel morphogenesis
G0:0045906 4
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                    self proteolysis
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G0:0035662
            4
                    Toll-like receptor 4 binding
G0:0060318
                    definitive erythrocyte differentiation
G0:0006405
            4
                    RNA export from nucleus
G0:0035088
            4
                    establishment or maintenance of apical/basal cell polarity
G0:0035082
                    axoneme assembly
G0:0046533
            4
                    negative regulation of photoreceptor cell differentiation
G0:0015872
            4
                    dopamine transport
G0:0045345
                    positive regulation of MHC class I biosynthetic process
G0:0030686
                    90S preribosome
G0:0060732
            4
                    positive regulation of inositol phosphate biosynthetic process
G0:0004758
                    serine C-palmitoyltransferase activity
G0:0003960
            4
                    NADPH:quinone reductase activity
G0:0045351
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                    type I interferon biosynthetic process
                    positive regulation of interferon-alpha biosynthetic process
GO:0045356
                    interleukin-4 secretion
GO:0072602
            4
G0:0097490
            4
                    sympathetic neuron projection extension
G0:0032463
                    negative regulation of protein homooligomerization
G0:0034454
            4
                    microtubule anchoring at centrosome
G0:0071498
            4
                    cellular response to fluid shear stress
G0:0021612
                    facial nerve structural organization
G0:0016600
            4
                    flotillin complex
G0:0010513
            4
                    positive regulation of phosphatidylinositol biosynthetic process
                    immunoglobulin V(D)J recombination
G0:0033152
GO:0051716
            4
                    cellular response to stimulus
G0:0016482
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                    cytoplasmic transport
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                    ethanol binding
G0:0046976
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G0:0042256
            4
                    mature ribosome assembly
G0:0004694 4
                    eukaryotic translation initiation factor 2alpha kinase activity
GO: 1902285
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                    semaphorin-plexin signaling pathway involved in neuron projection guidance
G0:1902282
            4
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muscle cell action potential repolarization
G0:0051152 4
G0:0051151 4
                    positive regulation of smooth muscle cell differentiation negative regulation of smooth muscle cell differentiation
                    positive regulation of striated muscle cell differentiation
G0:0051155 4
GO:0018243
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                    protein O-linked glycosylation via threonine
G0:0060971
            4
                    embryonic heart tube left/right pattern formation
GO:0036021
                    endolysosome lumen
G0:0036020
            4
                    endolysosome membrane
G0:0008540
            4
                    proteasome regulatory particle, base subcomplex
G0:0003161
                    cardiac conduction system development
G0:0070242
            4
                    thymocyte apoptotic process
G0:0004522
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                    pancreatic ribonuclease activity
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                    desensitization of G-protein coupled receptor protein signaling pathway
                    positive regulation of stem cell differentiation peptide antigen assembly with MHC class II protein complex
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G0:0002503
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                    protein-arginine N-methyltransferase activity
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                    negative regulation of nitric-oxide synthase biosynthetic process
G0:0030151
            4
                    molybdenum ion binding
G0:0071547
                    piP-body
GO:0000212
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                    meiotic spindle organization
G0:0090330
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                    regulation of platelet aggregation
                    pentose-phosphate shunt, non-oxidative branch
G0:0009052
G0:0044332
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                    What signaling pathway involved in dorsal/ventral axis specification
G0:0051286
            4
                    cell tip
                    pre-mRNA binding
G0:0036002
                    G-protein activated inward rectifier potassium channel activity
GO: 0015467
            4
G0:0003104
            4
                    positive regulation of glomerular filtration
                    regulation of spindle checkpoint
GO:0090231
G0:0015809
            4
                    arginine transport
                    positive regulation of transcription from RNA polymerase I promoter
G0:0045943
            4
G0:1903237
                    negative regulation of leukocyte tethering or rolling
            4
GO:0050974
                    detection of mechanical stimulus involved in sensory perception
G0:0032389
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                    MutLalpha complex
G0:2001046
                    positive regulation of integrin-mediated signaling pathway
G0:0008061
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                    chitin binding
                    mesenchymal cell development
G0:0014031
            4
G0:0004711
                    ribosomal protein S6 kinase activity
                    exo-alpha-(2->8)-sialidase activity
G0:0052796
            4
G0:0070734
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                    histone H3-K27 methylation
G0:0051345 4
                    positive regulation of hydrolase activity
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G0:0051344 4
G0:0016783 4
                    negative regulation of cyclic-nucleotide phosphodiesterase activity
                    sulfurtransferase activity
G0:0016780 4
                    phosphotransferase activity, for other substituted phosphate groups
G0:0007412
           4
                    axon target recognition
G0:0038085
           4
                    vascular endothelial growth factor binding
                    calmodulin-dependent protein phosphatase activity
G0:0033192
G0:0017128
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                    phospholipid scramblase activity
G0:0006526
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                    arginine biosynthetic process
G0:0046684 4
                    response to pyrethroid
G0:0045085
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                    negative regulation of interleukin-2 biosynthetic process
G0:0031404
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                    chloride ion binding
G0:0031262
                    Ndc80 complex
GO:0090003
                    regulation of establishment of protein localization to plasma membrane
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G0:0050501
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                    hyaluronan synthase activity
G0:0005384
                    manganese ion transmembrane transporter activity
G0:0001601
                    peptide YY receptor activity
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G0:1901214
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                    regulation of neuron death
G0:0055129
                    L-proline biosynthetic process
G0:0042045
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                    epithelial fluid transport
G0:0042048
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                    olfactory behavior
                    epidermal lamellar body
G0:0097209
                    ATP transport
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GO:0000395
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G0:0004558
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G0:0019470
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G0:0051321
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                    meiotic cell cycle
                    negative regulation of cholesterol transport
G0:0032375
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G0:0019941
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GO: 0010574
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                    regulation of vascular endothelial growth factor production
                    positive regulation of GO to G1 transition
G0:0070318
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                    G1 to G0 transition
G0:0070314
G0:0070317
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                    negative regulation of G0 to G1 transition
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G0:1900747 4
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pathway
G0:0050807
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                    regulation of synapse organization
                    regulation of renal sodium excretion
G0:0035813 4
                    negative regulation of mitochondrial outer membrane permeabilization
G0:1901029 4
involved in apoptotic signaling pathway
G0:0090385 4
                    phagosome-lysosome fusion
G0:0001514 4
G0:0042997 4
                    selenocysteine incorporation
                    negative regulation of Golgi to plasma membrane protein transport
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G0:0070857
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                    regulation of bile acid biosynthetic process
G0:0006548
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G0:0006543
                    glutamine catabolic process
GO:0060596
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                    mammary placode formation
G0:0032466
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                    negative regulation of cytokinesis
G0:0070852
                    cell body fiber
G0:0060591
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                    chondroblast differentiation
G0:0060676
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                    ureteric bud formation
                    positive regulation of NK T cell differentiation
G0:0051138 4
G0:0034991
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                    nuclear meiotic cohesin complex
G0:0021615
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                    regulation of tumor necrosis factor production
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                    arterial endothelial cell differentiation
GO:0060842
G0:0034354
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G0:0006287
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                    base-excision repair, gap-filling
G0:0030291
                    protein serine/threonine kinase inhibitor activity
G0:0005954
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                    calcium- and calmodulin-dependent protein kinase complex
G0:0030492
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                    hemoglobin binding
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                    response to leucine
G0:0003150
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                    muscular septum morphogenesis
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G0:0022405
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G0:0032354 4
                    response to follicle-stimulating hormone
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GO:0021696
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biosynthetic process
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                    synapse maturation
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                    regulation of postsynaptic membrane potential
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G0:0033564
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                    anterior/posterior axon guidance
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                    endocardium formation
G0:0008612
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                    exo-alpha-(2->3)-sialidase activity
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G0:0045916
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                    negative regulation of branching involved in ureteric bud morphogenesis
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G0:0009301
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G0:0035021
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                    glucose catabolic process
G0:0048619
                    embryonic hindgut morphogenesis
                    cellular response to misfolded protein
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G0:0014051
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                    gamma-aminobutyric acid secretion
                    positive regulation of gamma-aminobutyric acid secretion
G0:0014054
G0:0001504
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                    neurotransmitter uptake
G0:0003988
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                    acetyl-CoA C-acyltransferase activity
                    histone methyltransferase activity (H4-R3 specific)
G0:0044020
                    negative regulation of DNA damage checkpoint
GO: 2000002
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G0:0043559
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                    insulin binding
G0:0043084
                    penile erection
G0:0009582
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                    detection of abiotic stimulus
G0:0097113
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                    alpha-amino-3-hydroxy-5-methyl-4-isoxazole propionate selective glutamate
receptor clustering
G0:0036089 4
G0:0008186 4
                    cleavage furrow formation
                    RNA-dependent ATPase activity
                    regulation of protein import into nucleus, translocation
G0:0033158 4
G0:0045132
                    meiotic chromosome segregation
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G0:0045134
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                    uridine-diphosphatase activity
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                    regulation of catenin import into nucleus
G0:0004897
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                    ciliary neurotrophic factor receptor activity
                    laminin-5 complex
GO:0005610
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G0:0044314
                    protein K27-linked ubiquitination
                    carbonyl reductase (NADPH) activity
GO:0004090
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GO:0004095
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                    carnitine O-palmitoyltransferase activity
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                    citrulline metabolic process
G0:0004740
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                    pyruvate dehydrogenase (acetyl-transferring) kinase activity
                    negative regulation of NFAT protein import into nucleus
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                    L-amino acid transmembrane transporter activity
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GO:0016151
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                    nickel cation binding
G0:0090266
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                    regulation of mitotic cell cycle spindle assembly checkpoint
                    intracellular pH elevation
G0:0051454
                    nuclear pore nuclear basket
G0:0044615
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G0:0031428
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                    box C/D snoRNP complex
G0:0002634
                    regulation of germinal center formation
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G0:0043125
                    ErbB-3 class receptor binding
G0:0030259
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G0:0061041
                    regulation of wound healing
                    extracellular-glycine-gated chloride channel activity
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G0:0032393
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GO:0017160
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                    Ral GTPase binding
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                    vocal learning
                    ISG15 ligase activity
G0:0042296 4
G0:0072289
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                    metanephric nephron tubule formation
G0:0032453
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                    histone demethylase activity (H3-K4 specific)
G0:0050915
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G0:0006477
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                    protein sulfation
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                    leukemia inhibitory factor signaling pathway
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                    GABA-A receptor complex
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stranded DNA intermediate
G0:0004301 4
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                    ethanolamine kinase activity
G0:0004308 4
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                    internal peptidyl-lysine acetylation
                    6-phosphofructo-2-kinase activity
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                    SUMO polymer binding
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                    corticotropin-releasing hormone receptor 2 binding
G0:0051430
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                    corticotropin-releasing hormone receptor 1 binding
                    regulation of voltage-gated calcium channel activity
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G0:0047035
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                    testosterone dehydrogenase (NAD+) activity
G0:0033634
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                    positive regulation of cell-cell adhesion mediated by integrin
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G0:0035065
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                    regulation of histone acetylation
                    negative regulation of sequestering of triglyceride
G0:0010891
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                    negative regulation of steroid biosynthetic process
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GO:0006269
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                    DNA replication, synthesis of RNA primer
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                    interleukin-1 beta secretion
GO:0004111
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                    creatine kinase activity
G0:0004112
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G0:0072108 4
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metanephros morphogenesis
G0:0032045 4
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G0:0038028 4
G0:0031781 4
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                    type 3 melanocortin receptor binding
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G0:0017183
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                    peptidyl-diphthamide biosynthetic process from peptidyl-histidine
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                    determination of dorsal identity
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                    cellular metal ion homeostasis
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G0:0006873
                    cellular ion homeostasis
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                    regulation of cell fate commitment
                    positive regulation of T cell apoptotic process
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G0:2000987
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                    negative regulation of receptor recycling
G0:0001920
G0:0060754
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G0:0060750
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                    epithelial cell proliferation involved in mammary gland duct elongation
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G0:0051380
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                    norepinephrine binding
G0:0046952
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                    nuclear pore organization
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                    response to cobalt ion
G0:0032021
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GO:0070006
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G0:0032374 4
                    regulation of cholesterol transport
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G0:0060982 4
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G0:0060693
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GO: 0048755
                    branching morphogenesis of a nerve
G0:0004340
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                    mitochondrial respiratory chain complex IV assembly
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                    negative regulation of actin filament bundle assembly
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G0:0014829 4
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cell precursor cell proliferation
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                    regulation of protein homodimerization activity
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G0:0016460
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                    regulation of myeloid cell differentiation
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                    protein phosphatase type 1 regulator activity
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GO:0006084
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                    mitochondrial respiratory chain complex IV
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GO:0046978
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                    TAP1 binding
G0:0042699
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GO:0008486
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                    transforming growth factor beta receptor homodimeric complex
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G0:0021544
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G0:0021545
                    cranial nerve development
G0:0021891
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G0:0021892
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                    cerebral cortex GABAergic interneuron differentiation
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                    early phagosome
GO:0035519
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G0:0090175
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                    hexose metabolic process
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GO: 0007042
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                    regulation of lymphocyte differentiation
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                    signal recognition particle binding
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G0:0033504
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prostate glandular acinus development
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G0:0052844 4
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                    inositol-3-diphosphate-1,2,4,5,6-pentakisphosphate diphosphatase activity
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                    inositol-1,5-bisdiphosphate-2,3,4,6-tetrakisphosphate 5-diphosphatase
activity
G0:0052846 4
                    inositol-1,5-bisdiphosphate-2,3,4,6-tetrakisphosphate 1-diphosphatase
activity
                    inositol bisdiphosphate tetrakisphosphate diphosphatase activity
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G0:0052843
                    inositol-1-diphosphate-2,3,4,5,6-pentakisphosphate diphosphatase activity
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G0:0052842 4
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                    myosin V binding
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G0:0090116 4
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G0:0050833
                   pyruvate transmembrane transporter activity
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G0:0034776
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G0:1900164
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left/right asymmetry
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                    negative regulation of respiratory burst involved in inflammatory response
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                   ornithine metabolic process
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                   negative regulation of very-low-density lipoprotein particle remodeling
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                   negative regulation of female receptivity
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                   protein processing involved in protein targeting to mitochondrion
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response to hypoxia
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G0:0072012
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                    response to parathyroid hormone
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                    negative regulation of coagulation
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                    long-chain-acyl-CoA dehydrogenase activity
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                    lactose synthase activity
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G0:0021521
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                    visceral motor neuron differentiation
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migration
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                    spinal cord oligodendrocyte cell differentiation
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signaling pathway
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G0:0021781
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                   glial cell fate commitment
G0:0002922 3
                   positive regulation of humoral immune response
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G0:0045079 3
G0:0033260 3
                    negative regulation of chemokine biosynthetic process
                    nuclear cell cycle DNA replication
G0:0050912 3
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G0:0033269
G0:0033269 3
G0:0006344 3
                    internode region of axon
                    maintenance of chromatin silencing
G0:0003199 3
                    endocardial cushion to mesenchymal transition involved in heart valve
formation
G0:0004999
                    vasoactive intestinal polypeptide receptor activity
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                    regulation of NF-kappaB import into nucleus
G0:0000189
                    MAPK import into nucleus
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                    corticotropin hormone secreting cell differentiation
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                    detection of muscle stretch
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                    development of primary male sexual characteristics
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G0:0042825
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                    TAP complex
                    positive regulation of skeletal muscle tissue regeneration
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                    regulation of interleukin-6 production
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                    segmentation
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                    brain segmentation
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                    platelet activating factor biosynthetic process
GO:0006663
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                    substrate-dependent cell migration, cell attachment to substrate
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                    vitamin transport
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                    positive regulation of hh target transcription factor activity
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                    positive regulation of tooth mineralization
                    negative regulation of dendritic cell apoptotic process
GO:2000669
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G0:0061458
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                    reproductive system development
G0:0014706
                    striated muscle tissue development
G0:0014707
            3
                    branchiomeric skeletal muscle development
G0:0003273
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                    cell migration involved in endocardial cushion formation
                    SA node cell to atrial cardiac muscle cell communication
G0:0086070
G0:0033829
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                    O-fucosylpeptide 3-beta-N-acetylglucosaminyltransferase activity
G0:0031752
                    D5 dopamine receptor binding
G0:0031750
                    D3 dopamine receptor binding
G0:0060492
                    lung induction
                    chondroitin 4-sulfotransferase activity
G0:0047756
G0:0005250
                    A-type (transient outward) potassium channel activity
G0:0001306
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                    age-dependent response to oxidative stress
GO:0001302
            3
                    replicative cell aging
G0:2001016
                    positive regulation of skeletal muscle cell differentiation
G0:0003726
                    double-stranded RNA adenosine deaminase activity
            3
GO:0008898
            3
                    S-adenosylmethionine-homocysteine S-methyltransferase activity
G0:0018394
                    peptidyl-lysine acetylation
G0:0008097
            3
                    5S rRNA binding
G0:0010659
            3
                    cardiac muscle cell apoptotic process
G0:0008238
                    exopeptidase activity
                    ganglioside metabolic process
G0:0001573
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G0:0016480
            3
                    negative regulation of transcription from RNA polymerase III promoter
G0:0070545
                    PeBoW complex
G0:0031401
                    positive regulation of protein modification process
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G0:0019287
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                    isopentenyl diphosphate biosynthetic process, mevalonate pathway
G0:0032696
                    negative regulation of interleukin-13 production
                    RNA secondary structure unwinding regulation of B cell receptor signaling pathway
GO:0010501
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G0:0050855
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G0:0033128
                    negative regulation of histone phosphorylation
G0:0046582
            3
                    Rap GTPase activator activity
                    positive regulation of monocyte chemotactic protein-1 production
G0:0071639
            3
G0:0071638
                    negative regulation of monocyte chemotactic protein-1 production
G0:0046639
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                    negative regulation of alpha-beta T cell differentiation
G0:0035404
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                    histone-serine phosphorylation
G0:0061153 3
                    trachea gland development
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G0:0004937 3
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                    alpha1-adrenergic receptor activity
                    alpha2-adrenergic receptor activity
                    nucleotide-sugar transmembrane transporter activity
G0:0005338 3
GO:0042631
                    cellular response to water deprivation
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G0:0098536
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                    deuterosome
G0:0019076
                    viral release from host cell
G0:0045198
                    establishment of epithelial cell apical/basal polarity
G0:0060948
                    cardiac vascular smooth muscle cell development
                    efflux transmembrane transporter activity
G0:0015562
G0:0060012
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                    synaptic transmission, glycinergic
G0:0046649
            3
                    lymphocyte activation
G0:0021877
            3
                    forebrain neuron fate commitment
G0:0021871
                    forebrain regionalization
G0:0047045
            3
                    testosterone 17-beta-dehydrogenase (NADP+) activity
                    response to intra-S DNA damage checkpoint signaling
G0:0072429
                    vitamin E binding
G0:0008431
            3
                    inhibin-betaglycan-ActRII complex
G0:0034673
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                    Roundabout signaling pathway
GO:0035385
                    regulation of triglyceride biosynthetic process
G0:0010866
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G0:0019262
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                    N-acetylneuraminate catabolic process
                    negative regulation of dopamine receptor signaling pathway
G0:0060160
                    male sex differentiation
G0:0046661
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G0:0046058
            3
                    cAMP metabolic process
                    male germ-line stem cell asymmetric division
G0:0048133
G0:0072193
                    ureter smooth muscle cell differentiation
            3
                    racemase and epimerase activity, acting on carbohydrates and derivatives ribosomal small subunit export from nucleus
G0:0016857
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G0:0000056
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G0:0033864
                    positive regulation of NAD(P)H oxidase activity
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                    BH3 domain binding
G0:0051434
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G0:0019448
                    L-cysteine catabolic process
G0:0008241
                    peptidyl-dipeptidase activity
G0:0051373
            3
                    FATZ binding
G0:0006562
                    proline catabolic process
GO:0032450
                    maltose alpha-glucosidase activity
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G0:0034445
            3
                    negative regulation of plasma lipoprotein particle oxidation
G0:0034112
                    positive regulation of homotypic cell-cell adhesion
G0:0033326
                    cerebrospinal fluid secretion
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G0:0016615
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                    malate dehydrogenase activity
G0:0002513
                    tolerance induction to self antigen
                    telomerase inhibitor activity
G0:0010521
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G0:0010523
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                    negative regulation of calcium ion transport into cytosol
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                    negative regulation of calcineurin-NFAT signaling cascade
GO:1901077
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                    regulation of relaxation of muscle
G0:0001159
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                    core promoter proximal region DNA binding
                    peptidyl-arginine N-methylation
G0:0035246
GO:0072011
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                    glomerular endothelium development
G0:0010988
                    regulation of low-density lipoprotein particle clearance
G0:0010980
                    positive regulation of vitamin D 24-hydroxylase activity
G0:0048302
                    regulation of isotype switching to IgG isotypes
                    receptor internalization involved in canonical Wnt signaling pathway
G0:2000286
G0:2001242
                    regulation of intrinsic apoptotic signaling pathway
G0:2000021
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                    regulation of ion homeostasis
                    regulation of protein kinase C signaling
GO:0090036
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G0:0051142
                    positive regulation of NK T cell proliferation
                    cerebellar mossy fiber
G0:0044300
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                    positive regulation of cellular pH reduction
G0:0032849
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G0:0043652
                    engulfment of apoptotic cell
G0:0019054
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                    modulation by virus of host process
G0:0038171
            3
                    cannabinoid signaling pathway
G0:0055118
                    negative regulation of cardiac muscle contraction
GO:0052723
                    inositol hexakisphosphate 1-kinase activity
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G0:0052724
            3
                    inositol hexakisphosphate 3-kinase activity
G0:0045066
                    regulatory T cell differentiation
G0:0043227
                    membrane-bounded organelle
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G0:0004980
            3
                    melanocyte-stimulating hormone receptor activity
G0:0002331
                    pre-B cell allelic exclusion
                    apoptotic process involved in luteolysis
G0:0061364
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G0:0031937
            3
                    positive regulation of chromatin silencing
G0:0097431
                    mitotic spindle pole
G0:0009988
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                    cell-cell recognition
G0:0009187
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                    cyclic nucleotide metabolic process
G0:2001055
                    positive regulation of mesenchymal cell apoptotic process
G0:0050252
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                    retinol O-fatty-acyltransferase activity
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                    dolichyl-phosphate beta-D-mannosyltransferase activity
G0:0002677 3
                    negative regulation of chronic inflammatory response
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G0:0072189 3
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                    ureter development
                    steroid delta-isomerase activity
G0:0045309 3
                    protein phosphorylated amino acid binding
G0:2000729 3
                    positive regulation of mesenchymal cell proliferation involved in ureter
development
G0:0006354 3
                    DNA-templated transcription, elongation
G0:0000463
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                    maturation of LSU-rRNA from tricistronic rRNA transcript (SSU-rRNA, 5.8S
rRNA, LSU-rRNA)
G0:0000466 3
                    maturation of 5.8S rRNA from tricistronic rRNA transcript (SSU-rRNA, 5.8S
rRNA, LSU-rRNA)
G0:0070585
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                    protein localization to mitochondrion
G0:0051351 3
                    positive regulation of ligase activity
G0:0001845 3
G0:0001846 3
                     phagolysosome assembly
                     opsonin binding
G0:0046543 3
                    development of secondary female sexual characteristics
G0:0046544
            3
                    development of secondary male sexual characteristics
G0:0046010
                     positive regulation of circadian sleep/wake cycle, non-REM sleep
G0:0007113
                    endomitotic cell cycle
G0:0038091 3
                    positive regulation of cell proliferation by VEGF-activated platelet
derived growth factor receptor signaling pathway
G0:0071674 3
                    mononuclear cell migration
G0:0033300 3
G0:0034465 3
                    dehydroascorbic acid transporter activity
                     response to carbon monoxide
G0:0015697 3
                     quaternary ammonium group transport
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G0:0017136
                    NAD-dependent histone deacetylase activity
G0:0045899
                    positive regulation of RNA polymerase II transcriptional preinitiation
complex assembly
G0:0000268 3
G0:0072136 3
                     peroxisome targeting sequence binding
                     metanephric mesenchymal cell proliferation involved in metanephros
development
G0:0009048 3
G0:0036289 3
                    dosage compensation by inactivation of X chromosome
                     peptidyl-serine autophosphorylation
G0:0032792
                    negative regulation of CREB transcription factor activity
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G0:0019031
                    viral envelope
G0:2000974
            3
                    negative regulation of pro-B cell differentiation
G0:0043243
                    positive regulation of protein complex disassembly
                    clustering of voltage-gated potassium channels
G0:0045163
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G0:0060438
                     trachea development
G0:0015810
                    aspartate transport
                    negative regulation of glucose transport
synaptic transmission, GABAergic
negative regulation of complement activation, classical pathway
G0:0010829
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G0:0051932
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G0:0045959
G0:0006706 3
G0:1902175 3
G0:0006706
                    steroid catabolic process
                    regulation of oxidative stress-induced intrinsic apoptotic signaling
pathway
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G0:0005967
                    mitochondrial pyruvate dehydrogenase complex
G0:0004563
                    beta-N-acetylhexosaminidase activity
G0:0008073
                    ornithine decarboxylase inhibitor activity
G0:0016891
                    endoribonuclease activity, producing 5'-phosphomonoesters phosphopyruvate hydratase complex
GO:0000015
G0:0031664
                     regulation of lipopolysaccharide-mediated signaling pathway
G0:0004705
                    JUN kinase activity
            3
G0:0004706
            3
                    JUN kinase kinase kinase activity
G0:0018023
                    peptidyl-lysine trimethylation
G0:0045321
                    leukocyte activation
            3
G0:0045323
                     interleukin-1 receptor complex
G0:0000275 3
                    mitochondrial proton-transporting ATP synthase complex, catalytic core
F(1)
G0:0070971
                    endoplasmic reticulum exit site
G0:0019959
                    interleukin-8 binding
G0:0010560
            3
                    positive regulation of glycoprotein biosynthetic process
G0:0072345
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                    NAADP-sensitive calcium-release channel activity
G0:0033363
                    secretory granule organization
G0:0035754
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                    B cell chemotaxis
G0:0002074
                    extraocular skeletal muscle development
G0:0033185
                    dolichol-phosphate-mannose synthase complex
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GO:0033186
                    CAF-1 complex
G0:0016533
            3
                    cyclin-dependent protein kinase 5 holoenzyme complex
G0:0030185
                    nitric oxide transport
G0:0046691
            3
                    intracellular canaliculus
                     tricarboxylic acid metabolic process
G0:0072350
            3
G0:0060084
                     synaptic transmission involved in micturition
                    integral component of organelle membrane
GO:0031301
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            3
                     positive regulation of inositol 1,4,5-trisphosphate-sensitive calcium-
G0:0031587
release channel activity
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G0:0009299 3
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                    mRNA transcription
                    positive regulation of DNA ligation
                    negative regulation of binding
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                    aminoacyl-tRNA hydrolase activity
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G0:0032800
            3
                    receptor biosynthetic process
G0:0010159
                    specification of organ position
G0:0019012
                    virion
G0:0070682
            3
                    proteasome regulatory particle assembly
G0:0032119
                    sequestering of zinc ion
G0:1900182
                    positive regulation of protein localization to nucleus
            3
G0:0000819
            3
                    sister chromatid segregation
                    gonadal mesoderm development
G0:0007506
           3
G0:0071224
                    cellular response to peptidoglycan
G0:0071221
                    cellular response to bacterial lipopeptide
G0:0043260
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                    laminin-11 complex
                    positive regulation of histone H3-K27 methylation negative regulation of histone H3-K27 methylation
G0:0061087
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G0:0061086
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                    cellular response to gonadotropin-releasing hormone
G0:0097211
GO:0000942
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                    condensed nuclear chromosome outer kinetochore
G0:0015879
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                    carnitine transport
GO:0010807
                    regulation of synaptic vesicle priming
GO:0007500
                    mesodermal cell fate determination
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G0:0005944
            3
                    1-phosphatidylinositol-4-phosphate 3-kinase, class IB complex
                    negative regulation of hydrogen peroxide-induced neuron death
G0:1903208
G0:0036265
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                    RNA (guanine-N7)-methylation
G0:0048483
            3
                    autonomic nervous system development
                    phosphatidic acid transporter activity
G0:1990050
            3
GO:0002016
                    regulation of blood volume by renin-angiotensin
            3
G0:0048625
            3
                    myoblast fate commitment
                    alpha-1,3-mannosyltransferase activity
G0:0000033
G0:0034391
                    regulation of smooth muscle cell apoptotic process
G0:0018022
            3
                    peptidyl-lysine methylation
G0:0051310
                    metaphase plate congression
GO:0032342
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                    aldosterone biosynthetic process
G0:0019976
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                    interleukin-2 binding
                    miRNA catabolic process
G0:0010587
G0:0071417
                    cellular response to organonitrogen compound
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                    positive regulation of nephron tubule epithelial cell differentiation
G0:2000768
                    lipoprotein particle receptor binding
GO:0070325
GO:0070327
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                    thyroid hormone transport
G0:0004013
            3
                    adenosylhomocysteinase activity
                    norepinephrine metabolic process
G0:0042415
G0:0035773
                    insulin secretion involved in cellular response to glucose stimulus
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G0:0048808
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                    male genitalia morphogenesis
G0:0003095
                    pressure natriuresis
G0:0005594
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                    collagen type IX trimer
G0:0046501
                    protoporphyrinogen IX metabolic process
G0:0045851
                    pH reduction
                    valine catabolic process
G0:0006574
G0:0006576
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                    cellular biogenic amine metabolic process
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                    citrate transport
GO:0060066
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                    oviduct development
GO:0097009
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                    energy homeostasis
G0:0009263
                    deoxyribonucleotide biosynthetic process
G0:0051123
                    RNA polymerase II transcriptional preinitiation complex assembly
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G0:0051128
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                    regulation of cellular component organization
G0:0009008
                    DNA-methyltransferase activity
G0:0001652
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                    granular component
G0:0032289
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                    central nervous system myelin formation
G0:1901223
                    negative regulation of NIK/NF-kappaB signaling
GO:0003876
                    AMP deaminase activity
            3
G0:0019563
            3
                    glycerol catabolic process
                    response to interleukin-2
G0:0070669
G0:0004062
                    aryl sulfotransferase activity
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G0:0019557
            3
                    histidine catabolic process to glutamate and formate
G0:0040013
                    negative regulation of locomotion
G0:0032139
            3
                    dinucleotide insertion or deletion binding
G0:0016167
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                    glial cell-derived neurotrophic factor receptor activity
G0:0034447
                    very-low-density lipoprotein particle clearance
                    nucleotide-excision repair, DNA incision, 5'-to lesion
G0:0006296
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G0:0015853
            3
                    adenine transport
G0:0001012
                    RNA polymerase II regulatory region DNA binding
G0:0032446
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                    protein modification by small protein conjugation
G0:0043331
                    response to dsRNA
G0:0004525 3
                    ribonuclease III activity
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G0:0005218 3
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                    intracellular ligand-gated calcium channel activity
                    phosphoserine phosphatase activity
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G0:0015081
                    sodium ion transmembrane transporter activity
                    inner cell mass cell differentiation
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                    positive regulation of integrin biosynthetic process
                    metanephric comma-shaped body morphogenesis
                    metanephric glomerular capillary formation
G0:0072277 3
G0:1900744 3
G0:1900748 3
                    regulation of p38MAPK cascade
                    positive regulation of vascular endothelial growth factor signaling
pathway
G0:0060043 3
G0:0072144 3
                    regulation of cardiac muscle cell proliferation
                    glomerular mesangial cell development
G0:0017159 3
                    pantetheine hydrolase activity
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                    DEAD/H-box RNA helicase binding
G0:0017151
G0:0002035
                    brain renin-angiotensin system
G0:0002034 3
                    regulation of blood vessel size by renin-angiotensin
                    desensitization of G-protein coupled receptor protein signaling pathway by
G0:0002032 3
arrestin
G0:0071008 3
                    U2-type post-mRNA release spliceosomal complex
G0:0036091 3
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response to oxidative stress
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                    rRNA (adenine-N6,N6-)-dimethyltransferase activity
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                    androgen receptor activity
G0:0004886 3
                    9-cis retinoic acid receptor activity
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                    vitamin D response element binding
G0:0004082
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                    bisphosphoglycerate mutase activity
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                    bisphosphoglycerate 2-phosphatase activity
G0:0048852
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                    diencephalon morphogenesis
                    regulation of nucleotide-binding oligomerization domain containing
G0:0070424
signaling pathway
G0:0060401 3
G0:0050698 3
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                    proteoglycan sulfotransferase activity
G0:0033602 3
                    negative regulation of dopamine secretion
G0:0050691 3
G0:0051447 3
                    regulation of defense response to virus by host
                    negative regulation of meiotic cell cycle
                    response to fibroblast growth factor
G0:0071774
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G0:0035033
                    histone deacetylase regulator activity
G0:0035524
            3
                    proline transmembrane transport
G0:0035526
                    retrograde transport, plasma membrane to Golgi
            3
G0:0035522
                    monoubiquitinated histone H2A deubiquitination
G0:0035529
                    NADH pyrophosphatase activity
                    TRAPP complex
G0:0030008
G0:0042369
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                    vitamin D catabolic process
G0:0042360
                    vitamin E metabolic process
G0:0000340
                    RNA 7-methylguanosine cap binding
                    phenylalanine 4-monooxygenase activity mitochondrial ATP synthesis coupled electron transport
G0:0004505
G0:0042775
G0:0042773
                    ATP synthesis coupled electron transport
G0:0046929
            3
                    negative regulation of neurotransmitter secretion
G0:0050473
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                    arachidonate 15-lipoxygenase activity
G0:1902513
                    regulation of organelle transport along microtubule
                    negative regulation of T-helper 1 type immune response
GO:0002826
            3
                    negative regulation of adaptive immune response
G0:0002820
            3
                    establishment of synaptic specificity at neuromuscular junction
G0:0007529
G0:0010637
            3
                    negative regulation of mitochondrial fusion
G0:0036374
                    glutathione hydrolase activity
G0:0001591
                    dopamine neurotransmitter receptor activity, coupled via Gi/Go
GO:0003997
            3
                    acyl-CoA oxidase activity
G0:0044030
            3
                    regulation of DNA methylation
                    smooth muscle contraction involved in micturition
G0:0060083
G0:2000017
                    positive regulation of determination of dorsal identity
            3
G0:0030505
                    inorganic diphosphate transport
G0:0010841
                    positive regulation of circadian sleep/wake cycle, wakefulness
G0:0019240
                    citrulline biosynthetic process
            3
                    nuclear outer membrane-endoplasmic reticulum membrane network
G0:0042175
G0:0003051
                    angiotensin-mediated drinking behavior
G0:0043398
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                    HLH domain binding
G0:0044211
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                    CTP salvage
G0:0019862
                    IgA binding
G0:0019867
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G0:0071942
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                    XPC complex
G0:0060027 3
                    convergent extension involved in gastrulation
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G0:0060024
                    rhythmic synaptic transmission
G0:0060020
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                    myosin II filament
G0:0097513
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                    fungiform papilla formation
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G0:0046103
            3
                    inosine biosynthetic process
GO:0009597
                    detection of virus
G0:0009595
                    detection of biotic stimulus
G0:0050803
            3
                    regulation of synapse structure and activity
G0:0031296
                    B cell costimulation
G0:1902495
                    transmembrane transporter complex
            3
G0:0004311
                    farnesyltranstransferase activity
G0:0070996
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                    type 1 melanocortin receptor binding
G0:0042904
                    9-cis-retinoic acid biosynthetic process
                    negative regulation of glycogen (starch) synthase activity
G0:2000466
                    positive regulation of glycogen (starch) synthase activity
G0:2000467
G0:0033596
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                    TSC1-TSC2 complex
G0:0033590
            3
                    response to cobalamin
                    neutrophil apoptotic process
G0:0001781
GO:0051425
                    PTB domain binding
            -3
G0:0005863
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                    striated muscle myosin thick filament
GO:0007033
                    vacuole organization
G0:0000938
                    GARP complex
            3
G0:0047086
            3
                    ketosteroid monooxygenase activity
                    carbon-nitrogen ligase activity, with glutamine as amido-N-donor
G0:0016884
G0:0030241
            3
                    skeletal muscle myosin thick filament assembly
G0:0033623
            3
                    regulation of integrin activation
                    pyruvate dehydrogenase (acetyl-transferring) activity
G0:0004739
            3
G0:0035054
            3
                    embryonic heart tube anterior/posterior pattern specification
G0:0061038
            3
                    uterus morphogenesis
                    insulin-like growth factor II binding
G0:0031995
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G0:0005784
            3
                    Sec61 translocon complex
G0:0005785
                    signal recognition particle receptor complex
G0:0003941
                    L-serine ammonia-lyase activity
GO:0042758
            3
                    long-chain fatty acid catabolic process
G0:0072709
            3
                    cellular response to sorbitol
G0:0072138
                    mesenchymal cell proliferation involved in ureteric bud development
G0:0004128
                    cytochrome-b5 reductase activity, acting on NAD(P)H
            3
G0:0004127
            3
                    cytidylate kinase activity
G0:0032507
                    maintenance of protein location in cell
                    clathrin heavy chain binding clathrin light chain binding
G0:0032050
            3
G0:0032051
            3
                    negative regulation of ATP citrate synthase activity
GO: 2000984
G0:0016715
                    oxidoreductase activity, acting on paired donors, with incorporation or
            3
reduction of molecular oxygen, reduced ascorbate as one donor, and incorporation of one atom
of oxygen
G0:0004873 3
                    asialoglycoprotein receptor activity
G0:0043506
                    regulation of JUN kinase activity
G0:0043504
                    mitochondrial DNA repair
            3
                    DNA cytosine deamination
G0:0070383
G0:0071034
            3
                    CUT catabolic process
G0:0061205
                    paramesonephric duct development
GO:0060559
            3
                    positive regulation of calcidiol 1-monooxygenase activity
G0:0097062
            3
                    dendritic spine maintenance
G0:0065002
                    intracellular protein transmembrane transport
G0:0004332
                    fructose-bisphosphate aldolase activity
            3
GO:0006868
            3
                    glutamine transport
G0:0045226
                    extracellular polysaccharide biosynthetic process
G0:0070972
                    protein localization to endoplasmic reticulum
            3
G0:0070602
            3
                    regulation of centromeric sister chromatid cohesion
G0:0031415
                    NatA complex
GO: 2000195
                    negative regulation of female gonad development
            3
G0:0045007
            3
                    depurination
G0:0045006
                    DNA deamination
                    \begin{array}{ll} \text{negative regulation of regulatory T cell differentiation} \\ \text{negative regulation of helicase activity} \end{array}
G0:0045590
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G0:0051097
G0:0051546
                    keratinocyte migration
                    plasma cell differentiation
GO:0002317
            3
                    macromolecular complex
G0:0032991
            3
G0:0071731
                    response to nitric oxide
GO:0071733
            3
                    transcriptional activation by promoter-enhancer looping
                    negative regulation of mast cell apoptotic process
G0:0033026
            3
G0:0030229
                    very-low-density lipoprotein particle receptor activity
GO:0000104
            3
                    succinate dehydrogenase activity
GO:0061010
            3
                    gall bladder development
                    positive regulation of mRNA catabolic process
G0:0061014 3
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G0:0006278 3
G0:0010883 3
                    RNA-dependent DNA replication
                    regulation of lipid storage
                    nicotinamide-nucleotide adenylyltransferase activity
G0:0000309
G0:1901727
                    positive regulation of histone deacetylase activity
            3
G0:0031313
            3
                    extrinsic component of endosome membrane
                    epithelial cell fate commitment
G0:0072148
G0:0048408
            3
                    epidermal growth factor binding
G0:0004656
                    procollagen-proline 4-dioxygenase activity
                    IRES-dependent translational initiation
G0:0002192
G0:0002193
                    MAML1-RBP-Jkappa- ICN1 complex
            3
G0:0048641
            3
                    regulation of skeletal muscle tissue development
G0:0009414
            3
                    response to water deprivation
G0:0004104
                    cholinesterase activity
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G0:0036336
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G0:0003136
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                    BMP signaling pathway involved in heart induction
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                    response to low-density lipoprotein particle
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                    response to oleic acid
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                    oxygen sensor activity
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                    morphogenesis of an epithelial fold
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                    sterol transport
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                    regulation of interleukin-6 biosynthetic process
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                    kininogen binding
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                    regulation of hippo signaling
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G0:0035331
                    negative regulation of hippo signaling
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                    response to nematode
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G0:0032203
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regeneration
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                    neutrophil extravasation
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                    phagolysosome
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pathway
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G0:0070858
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                   cuticular plate
G0:0070201
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                   negative regulation of T-helper 1 cell differentiation
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                    C-fiber
G0:0045602
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development
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                    L-alanine transmembrane transporter activity
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                    L-aspartate transmembrane transporter activity
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organization
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                    collagen type VI trimer
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                    N-formyl peptide receptor activity
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                    protein farnesylation
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                    Flemming body
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                    catabolic process
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                    regulation of interferon-beta production
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                    anthranilate metabolic process
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                    spindle assembly checkpoint
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                    cGMP metabolic process
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                    positive regulation of mononuclear cell proliferation
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                    lung goblet cell differentiation
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                    perichromatin fibrils
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                    prolactin signaling pathway
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                    atrioventricular node development
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                    regulation of endodermal cell fate specification
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                    IMP metabolic process
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G0:0044331
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                    cell-cell adhesion mediated by cadherin
GO:0009051
                    pentose-phosphate shunt, oxidative branch
                    serotonin biosynthetic process
GO: 0042427
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                    radial glia guided migration of Purkinje cell
G0:0021942
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G0:0008900
                    hydrogen:potassium-exchanging ATPase activity
G0:0051280
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                    negative regulation of release of sequestered calcium ion into cytosol
G0:0061156
            3
                    pulmonary artery morphogenesis
G0:0001992
                    regulation of systemic arterial blood pressure by vasopressin
            3
                    positive regulation of the force of heart contraction by epinephrine-
GO:0001997
norepinephrine
G0:0001994 3
                    norepinephrine-epinephrine vasoconstriction involved in regulation of
systemic arterial blood pressure
                    dicarboxylic acid metabolic process
G0:0043648 3
G0:0008670 3
                    2,4-dienoyl-CoA reductase (NADPH) activity
G0:0021847 3
G0:0055106 3
                    ventricular zone neuroblast division
                    ubiquitin-protein transferase regulator activity
G0:0070458 3
                    cellular detoxification of nitrogen compound
```

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G0:0021769 3
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                    orbitofrontal cortex development
                    laminin-10 complex
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                    oxidoreductase activity, acting on single donors with incorporation of
molecular oxygen
G0:0033688
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                    regulation of osteoblast proliferation
G0:0043486 3
                    histone exchange
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G0:0060421 3
                    negative regulation of luteinizing hormone secretion
                    positive regulation of heart growth
G0:0090238 3
                    positive regulation of arachidonic acid secretion
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G0:0010834
                    telomere maintenance via telomere shortening
G0:0015808
                    L-alanine transport
G0:0051902
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                    negative regulation of mitochondrial depolarization
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                    cellular water homeostasis
GO:0009991
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                    response to extracellular stimulus
G0:1902186
                    regulation of viral release from host cell
                    regulation of integrin-mediated signaling pathway
G0:2001044
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G0:1990000
            3
                    amyloid fibril formation
G0:0042977
                    activation of JAK2 kinase activity
GO:0016866
                    intramolecular transferase activity
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G0:0002366
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                    leukocyte activation involved in immune response
G0:0072197
                    ureter morphogenesis
G0:0003872
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                    6-phosphofructokinase activity
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                    response to aluminum ion
G0:0042853
                    L-alanine catabolic process
                    positive regulation of cyclic-nucleotide phosphodiesterase activity
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G0:0032318
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                    regulation of Ras GTPase activity
                    regulation of Rap GTPase activity
G0:0032317
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GO:0015254
                    glycerol channel activity
G0:0050861
                    positive regulation of B cell receptor signaling pathway
G0:0002521
                    leukocyte differentiation
G0:0015780
                    nucleotide-sugar transport
G0:0071464
                    cellular response to hydrostatic pressure
G0:0071467
                    cellular response to pH
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G0:0071439
                    clathrin complex
G0:0071438
                    invadopodium membrane
G0:0070243
                    regulation of thymocyte apoptotic process
G0:0007127
                    meiosis I
G0:0047484
                    regulation of response to osmotic stress
G0:0016520
                    growth hormone-releasing hormone receptor activity
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G0:0005787
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                    signal peptidase complex
GO:0035694
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G0:0031701
                    angiotensin receptor binding
G0:0072201
                    negative regulation of mesenchymal cell proliferation
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G0:0004965
G0:0004967
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                    glucagon receptor activity
G0:0004966
                    galanin receptor activity
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                    GDP-mannose biosynthetic process
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                    metanephros morphogenesis
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                    regulation of hydrogen peroxide metabolic process
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acetylglucosaminyltransferase activity
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                    regulation of protein deacetylation
G0:0032767
                    copper-dependent protein binding
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                    negative regulation of mesoderm development
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                    type II activin receptor binding
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                    histidine catabolic process to glutamate and formamide
GO:0032100
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                    dynein intermediate chain binding
GO:0000801
                    central element
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                    negative regulation of ion transport
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propionate selective glutamate receptor activity
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G0:0034629 3
                    cellular response to unfolded protein
                    cellular protein complex localization
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                    hormone catabolic process
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                    alpha-amylase activity
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                    regulation of respiratory system process
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G0:2000774
            3
                    positive regulation of cellular senescence
G0:0007144
                    female meiosis I
G0:0034436
                    glycoprotein transport
G0:2000599
                    negative regulation of cyclin catabolic process
                    long-chain-enoyl-CoA hydratase activity
G0:0016508
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G0:0017101
                    aminoacyl-tRNA synthetase multienzyme complex
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G0:0017108
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                    5'-flap endonuclease activity
                    single-stranded telomeric DNA binding
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                    peptide antigen transport
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                    allantoin metabolic process
G0:0000253
                    3-keto sterol reductase activity
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                    bombesin receptor activity
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                    arachidonate 12-lipoxygenase activity
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                    fever generation
                    positive regulation of interleukin-18 production
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                    beta-glucuronidase activity
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                    tubulin complex
                    response to interleukin-15
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G0:0044327
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                    dendritic spine head
G0:0040009
                    regulation of growth rate establishment of nucleus localization
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G0:0040023
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                    negative regulation of interferon-beta production
                    positive regulation of cytoskeleton organization
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                    traversing start control point of mitotic cell cycle base-excision repair, DNA ligation
G0:0007089
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G0:0006288
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G0:0002679
                    respiratory burst involved in defense response
G0:0050849
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                    negative regulation of calcium-mediated signaling
                    negative regulation of protein import into nucleus, translocation
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G0:0060468
                    prevention of polyspermy
GO: 0048495
                    Roundabout binding
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G0:0048639
                    positive regulation of developmental growth
G0:0048630
                    skeletal muscle tissue growth
G0:0014074
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                    response to purine-containing compound
G0:0008282
                    ATP-sensitive potassium channel complex
G0:0019797
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                    procollagen-proline 3-dioxygenase activity
G0:0071603
                    endothelial cell-cell adhesion
G0:0002005
                    angiotensin catabolic process in blood
G0:0051304
                    chromosome separation
G0:0032357
                    oxidized purine DNA binding
G0:0071933
                    Arp2/3 complex binding
G0:0010593
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                    negative regulation of lamellipodium assembly
G0:0071934
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                    thiamine transmembrane transport
G0:0030350
                    iron-responsive element binding
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                    trophectodermal cellular morphogenesis
G0:0001832
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                    calcium-independent cell-matrix adhesion
G0:0007161
G0:0043305
                    negative regulation of mast cell degranulation
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G0:0016560
                    protein import into peroxisome matrix, docking
G0:0016561
                    protein import into peroxisome matrix, translocation
G0:0045715
                    negative regulation of low-density lipoprotein particle receptor
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biosynthetic process
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G0:0006565 3
G0:0006568 3
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                    tryptophan metabolic process
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                    delta DNA polymerase complex
G0:0072307 3
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                    regulation of metanephric nephron tubule epithelial cell differentiation
                    cellular response to granulocyte macrophage colony-stimulating factor
stimulus
G0:0097016 3
G0:0030688 3
                    L27 domain binding preribosome, small subunit precursor
G0:0002025 3
                    vasodilation by norepinephrine-epinephrine involved in regulation of
systemic arterial blood pressure
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                    regulation of DNA-dependent DNA replication initiation
G0:0042978 3
                    ornithine decarboxylase activator activity
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G0:0034370
            3
                    triglyceride-rich lipoprotein particle remodeling
                    superoxide-generating NADPH oxidase activator activity
G0:0016176
G0:0071219
                    cellular response to molecule of bacterial origin
G0:0060166
                    olfactory pit development
                    thiamine uptake transmembrane transporter activity
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G0:0048680
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                    positive regulation of axon regeneration
G0:0010606
                    positive regulation of cytoplasmic mRNA processing body assembly
G0:0042373
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                    vitamin K metabolic process
G0:0042371
                    vitamin K biosynthetic process
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G0:0060440
                    trachea formation
G0:0043367
                    CD4-positive, alpha-beta T cell differentiation
G0:0004924
                    oncostatin-M receptor activity
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G0:0004517
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                    nitric-oxide synthase activity
G0:0072049
                    comma-shaped body morphogenesis
GO:0035092
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                    sperm chromatin condensation
G0:0018636
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                    phenanthrene 9,10-monooxygenase activity
                    ATP-activated inward rectifier potassium channel activity
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G0:0009750
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                    response to fructose
                    acetyl-CoA C-acetyltransferase activity
G0:0003985
                    B cell mediated immunity
G0:0019724
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                    hypermethylation of CpG island
G0:0044027
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                    optic cup formation involved in camera-type eye development
G0:0003408
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GO:0071918
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                    cellular macromolecule catabolic process
GO:0002090
                    regulation of receptor internalization
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                    negative regulation of beta-amyloid clearance
G0:0060058 3
                    positive regulation of apoptotic process involved in mammary gland
involution
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                    positive regulation of prostaglandin-endoperoxide synthase activity
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                    positive regulation of dermatome development
                    positive regulation of metanephric glomerulus development
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G0:0009236
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                    cobalamin biosynthetic process
G0:0060632
                    regulation of microtubule-based movement
G0:0035591
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                    signaling adaptor activity
G0:0048841
                    regulation of axon extension involved in axon guidance
G0:0009583
                    detection of light stimulus
G0:0043293
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                    apoptosome
                    sequestering of triglyceride
G0:0030730
G0:0071598 3
                    neuronal ribonucleoprotein granule
                    transferase activity, transferring alkyl or aryl (other than methyl)
G0:0016765 3
groups
G0:0018916 3
                    nitrobenzene metabolic process
G0:0070633 3
G0:0045988 3
                    transepithelial transport
                    negative regulation of striated muscle contraction
G0:0004748 3
                    ribonucleoside-diphosphate reductase activity, thioredoxin disulfide as
acceptor
G0:0070189
                    kynurenine metabolic process
G0:0050294
                    steroid sulfotransferase activity
G0:0033076
                    isoquinoline alkaloid metabolic process
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G0:2000278
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G0:0042796
G0:0015174
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                    basic amino acid transmembrane transporter activity
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G0:0047429
                    nucleoside-triphosphate diphosphatase activity
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                    hydrogen sulfide biosynthetic process
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                    bile acid catabolic process
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                    GMP biosynthetic process
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                    gamma-aminobutyric acid metabolic process
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                    lens fiber cell apoptotic process
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                    thiosulfate sulfurtransferase activity
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                    U4/U6 snRNP
G0:0060399
                    positive regulation of growth hormone receptor signaling pathway
G0:0005900
                    oncostatin-M receptor complex
GO:0051900
                    regulation of mitochondrial depolarization
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G0:0010621
                    negative regulation of transcription by transcription factor localization
G0:0046914
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                    transition metal ion binding
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G0:0038007
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                    negative regulation of Wnt signaling pathway involved in heart development
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G0:0035878
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                    nail development
G0:0008426
                    protein kinase C inhibitor activity
GO:0035873
                    lactate transmembrane transport
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                    regulation of tissue remodeling
                    negative regulation of action potential
GO: 0045759
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                    cellular heat acclimation
G0:1900246
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                    positive regulation of RIG-I signaling pathway
                    interleukin-12-mediated signaling pathway
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                    CRLF-CLCF1 complex
                    adhesion of symbiont to host
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G0:0044205
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G0:0070613
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                    regulation of protein processing
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G0:0070966
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G0:0070969
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                    ULK1-ATG13-FIP200 complex
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                    PMA-inducible membrane protein ectodomain proteolysis
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                    Elongator holoenzyme complex
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GO:0030485
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                    smooth muscle contractile fiber
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G0:0033144 3
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pathway
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                    insulin receptor complex
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G0:1990247
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G0:1990246
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                    T-helper 17 cell lineage commitment
G0:0031989
                    bombesin receptor signaling pathway
                    natural killer cell degranulation
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                    negative regulation of triglyceride catabolic process
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                    Golgi medial cisterna
G0:0035791
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                    bundle of His development
G0:0048194
                    Golgi vesicle budding
                    N-terminal protein amino acid modification
G0:0031365
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                    metanephric mesenchyme morphogenesis
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                    replication fork protection
G0:0090245
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                    axis elongation involved in somitogenesis
G0:0005534
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                    galactose binding
G0:0004118
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GO:0010644
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                    cell communication by electrical coupling
G0:0046935
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                    1-phosphatidylinositol-3-kinase regulator activity
GO:0001547
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                    elastic fiber
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                    Ski complex
G0:2000041 3
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elongation
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derived growth factor receptor-beta signaling pathway
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                   regulation of necroptotic process
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morphogenesis
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                    regulation of branch elongation involved in ureteric bud branching
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                    nucleotide transmembrane transport
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                    negative regulation of dendritic spine morphogenesis
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                    dGTP catabolic process
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                    receptor activator activity
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                    establishment of localization in cell
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                    clathrin-sculpted acetylcholine transport vesicle membrane
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                    habituation
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                    quaternary ammonium group transmembrane transporter activity
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                    Atg1p signaling complex
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                    phenylalanyl-tRNA aminoacylation
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                    neuroepithelial cell differentiation
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                    adenosine to inosine editing
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                    photoreceptor cell development
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G0:0043567
                     regulation of insulin-like growth factor receptor signaling pathway
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GO: 1900212
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metanephros development
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                     aspartic endopeptidase activity, intramembrane cleaving
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G0:0008107
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                     galactoside 2-alpha-L-fucosyltransferase activity
                     asymmetric protein localization
GO:0008105
G0:0035241
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                     protein-arginine omega-N monomethyltransferase activity
G0:0004813
                     alanine-tRNA ligase activity
                     S-methyl-5-thioribose-1-phosphate isomerase activity
G0:0046523
G0:0042998
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                     positive regulation of Golgi to plasma membrane protein transport
G0:0071225
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                     cellular response to muramyl dipeptide
G0:0023051
                     regulation of signaling
G0:0007431 3
G0:0014809 3
                     salivary gland development
                     regulation of skeletal muscle contraction by regulation of release of
sequestered calcium ion
G0:0010498 3
G0:0033561 3
                    proteasomal protein catabolic process regulation of water loss via skin
G0:0016668 3
                    oxidoreductase activity, acting on a sulfur group of donors, NAD(P) as
acceptor
G0:0008384 3
                     IkappaB kinase activity
                    neurofilament bundle assembly
G0:0033693 3
G0:0016401 3
G0:0097116 3
                     palmitoyl-CoA oxidase activity
                     gephyrin clustering
G0:1902108 3
                     regulation of mitochondrial membrane permeability involved in apoptotic
process
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                     alpha-1B adrenergic receptor binding
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                     negative regulation of cell proliferation involved in contact inhibition
G0:0060242
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                     contact inhibition
GO:0009447
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G0:0045058
                     T cell selection
G0:0031346
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                     positive regulation of cell projection organization
                     termination of signal transduction
G0:0023021
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G0:0023029
                     MHC class Ib protein binding
G0:0048014
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                     Tie signaling pathway
                     targeting of mRNA for destruction involved in RNA interference
G0:0030423
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G0:0004605
                     phosphatidate cytidylyltransferase activity
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                    positive regulation of thyroid hormone generation positive regulation of hepatocyte proliferation
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G0:2000347
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                    positive regulation of granulocyte macrophage colony-stimulating factor
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biosynthetic process
G0:0070044 3
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                    cortisol biosynthetic process
G0:0034653 3
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                    retinoic acid catabolic process
                    rhombomere 4 development
                    vestibulocochlear nerve development
G0:0021562 3
G0:0030951
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3
                    establishment or maintenance of microtubule cytoskeleton polarity
G0:0051250
                    negative regulation of lymphocyte activation
G0:0034502
                    protein localization to chromosome
G0:0034508
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                    centromere complex assembly
G0:1901841
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                    regulation of high voltage-gated calcium channel activity
G0:0008173
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                    RNA methyltransferase activity
G0:1990126
                    retrograde transport, endosome to plasma membrane
G0:0030422
            3
                    production of siRNA involved in RNA interference
                    operant conditioning
G0:0035106
G0:0061384
                    heart trabecula morphogenesis
            3
G0:0031932
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                    TORC2 complex
G0:0030158
                    protein xylosyltransferase activity
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                    prostate epithelial cord elongation
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G0:0035360
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signaling pathway
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                    podosome assembly
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G0:0003401
G0:0003401 3
G0:0043137 3
                    axis elongation
                    DNA replication, removal of RNA primer
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                    pyruvate dehydrogenase complex
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                    regulation of isotype switching
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                    ventral midline development
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                    cellular lipid catabolic process
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                    smoothened binding
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                    endoplasmic reticulum tubular network
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RNA polymerase I promoter
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                    cellular response to amino acid starvation
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G0:0034188
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                    positive regulation of heparan sulfate proteoglycan biosynthetic process
GO:0005712
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                    pigment granule localization
G0:0051873
                    killing by host of symbiont cells
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G0:0002296
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                    T-helper 1 cell lineage commitment
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G0:2001171
                    negative regulation of ATP biosynthetic process
G0:2001170
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G0:0048382
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G0:0048385
                    regulation of retinoic acid receptor signaling pathway
                    regulation of interleukin-2 biosynthetic process
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                    iodide peroxidase activity
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activity
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                    prostaglandin-D synthase activity
G0:0004660
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                    protein farnesyltransferase activity
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nonsense-mediated decay
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G0:0033044
                    regulation of chromosome organization
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                    negative regulation of proteasomal protein catabolic process negative regulation of signal transduction by p53 class mediator
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G0:1901797
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                    polynucleotide 3'-phosphatase activity
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G0:0008428
                    ribonuclease inhibitor activity
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                    plasma lipoprotein particle clearance
G0:0006109
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                    regulation of carbohydrate metabolic process
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                    bradykinin receptor binding
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                    extrinsic component of endoplasmic reticulum membrane
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                    uridine phosphorylase activity
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GO:0060265
                    proximal tubule development
G0:0072014
G0:1902911
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                    protein kinase complex
                    negative regulation of cellular response to growth factor stimulus
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G0:0050135
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                    actin filament branching
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                    glycerol transmembrane transporter activity
GO:0005459
                    UDP-galactose transmembrane transporter activity
G0:0010902
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                    positive regulation of necroptotic process
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                    prenylcysteine oxidase activity
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                    activation of phospholipase A2 activity
G0:0032929
                    negative regulation of superoxide anion generation
G0:2000681
                    negative regulation of rubidium ion transport
                    negative regulation of rubidium ion transmembrane transporter activity
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                    esophagus smooth muscle contraction
                    regulation of megakaryocyte differentiation
GO:0045652
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                    sphingosine-1-phosphate phosphatase activity
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                    DNA photolyase activity
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                    response to interleukin-9
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G0:0071109
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                    rhythmic behavior
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                    phosphothreonine binding
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                    fasciculation of motor neuron axon
G0:0097157
                    pre-mRNA intronic binding
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                    adenylate cyclase-inhibiting G-protein coupled acetylcholine receptor
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signaling pathway
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                    negative regulation of retinal cell programmed cell death
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                    T cell activation via T cell receptor contact with antigen bound to MHC
molecule on antigen presenting cell
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                    cell migration involved in vasculogenesis
G0:0030125
                    clathrin vesicle coat
G0:0031386 2
                    protein tag
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G0:2000095
G0:0045010
                    actin nucleation
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GO:0004649
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pathway
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                    postganglionic parasympathetic nervous system development
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immunoglobulin
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                    negative regulation of stem cell proliferation
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                    olfactory bulb mitral cell layer development
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                    regulation of nuclear cell cycle DNA replication
                    chromatin silencing at telomere
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                    atrioventricular valve formation
G0:0003190
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G0:0003193
                    pulmonary valve formation
mitral valve formation
G0:0003192
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                    transferrin receptor activity
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                    protein import
G0:0086015
            2
                    SA node cell action potential
                    regulation of glycoprotein biosynthetic process
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                    rhythmic excitation
G0:0043178
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                    alcohol binding
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                    mitochondrial electron transport, cytochrome c to oxygen
G0:0000182
                    rDNA binding
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G0:0072079
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                    nephron tubule formation
G0:0072073
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                    regulation of secretion
                    regulation of cellular response to drug
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                    15-hydroxyprostaglandin dehydrogenase (NAD+) activity
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acetylgalactosaminyltransferase activity
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                    regulation of endocannabinoid signaling pathway
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G0:0035993 2
                    negative regulation of sodium:proton antiporter activity
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G0:2000781
GO:0047017
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                    prostaglandin-F synthase activity
G0:0072678
                    T cell migration
G0:0000406
                    double-strand/single-strand DNA junction binding
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                    vitamin D receptor signaling pathway
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                    toll-like receptor 7 signaling pathway
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                    positive regulation of progesterone secretion
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                    vagus nerve morphogenesis
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                    negative regulation of cAMP metabolic process
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G0:0033108
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                    positive regulation of fever generation by positive regulation of
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prostaglandin secretion
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                    negative regulation of osteoclast development
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                    inorganic phosphate transmembrane transporter activity
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                    CD8 receptor binding
                    relaxation of skeletal muscle
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                    regulation of delayed rectifier potassium channel activity
GO: 1902257
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                    negative regulation of apoptotic process involved in outflow tract
morphogenesis
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mediator
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G0:0044340 2
                    canonical Wnt signaling pathway involved in regulation of cell
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proliferation
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                    regulation of enamel mineralization
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                    cyclin K-CDK12 complex
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            2
G0:2000667
                    positive regulation of interleukin-13 secretion
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outflow tract cell proliferation
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                    cell proliferation involved in outflow tract morphogenesis
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                    D-erythro-sphingosine kinase activity
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G0:2000504
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                    regulation of actin filament length
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                    negative regulation of actin filament depolymerization
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                    establishment of planar polarity of embryonic epithelium
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                    RNA repair
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                     galactosylceramide metabolic process
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                     myosin light chain kinase activity
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activity
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G0:0021873
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                     regulation of organ formation
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G0:0034677
                     integrin alpha7-beta1 complex
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macrophages
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specification
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channel activity
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                     negative regulation of NAD(P)H oxidase activity
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                     tryptophan catabolic process to acetyl-CoA
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GO:0004021
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                     regulation of adenylate cyclase activity
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G0:0044092
                     negative regulation of molecular function
GO:0033142
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G0:0070889
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                     negative regulation of cell projection organization
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                     regulation of transcription factor import into nucleus
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                    protein deamination
                    copper-exporting ATPase activity
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                    negative regulation of gene silencing by miRNA
G0:0060965
G0:0060964
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                    cellular response to erythropoietin
G0:0001635
                    calcitonin gene-related polypeptide receptor activity
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                    angiogenin-PRI complex
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                    plus-end directed microfilament motor activity
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signaling
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                    TNFSF11-mediated signaling pathway
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G0:0008665
                    2'-phosphotransferase activity
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                    hypothalamus cell migration
                    suppression by virus of host apoptotic process
G0:0019050
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                    neurotrophin signaling pathway
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            2
                    carbohydrate catabolic process
G0:0045550
            2
                    geranylgeranyl reductase activity
G0:0014740
                    negative regulation of muscle hyperplasia
GO:0042019
            2
                    interleukin-23 binding
G0:0003179
                    heart valve morphogenesis
G0:0047023
                    androsterone dehydrogenase activity
G0:0003171
           2
                    atrioventricular valve development
G0:1900041
            2
                    negative regulation of interleukin-2 secretion
                    positive regulation of monocyte aggregation
G0:1900625
G0:0035651
           2
                    AP-3 adaptor complex binding
                    positive regulation of Fc receptor mediated stimulatory signaling pathway
G0:0060369
G0:0015837
                    amine transport
G0:1902998
           2
                    positive regulation of neurofibrillary tangle assembly
            2
G0:0005989
                    lactose biosynthetic process
G0:0017098
                    sulfonylurea receptor binding
                    isoprenoid metabolic process
G0:0006720
            2
G0:0030551
            2
                    cyclic nucleotide binding
                    neurohypophyseal hormone activity
G0:0005185
GO: 1903027
            2
                    regulation of opsonization
GO:0009186
            2
                    deoxyribonucleoside diphosphate metabolic process
                    purine ribonucleoside diphosphate catabolic process
GO:0009181
G0:0004766
                    spermidine synthase activity
G0:0072182
            2
                    regulation of nephron tubule epithelial cell differentiation
G0:0072181
                    mesonephric duct formation
G0:0003914
            2
                    DNA (6-4) photolyase activity
G0:0003884
                    D-amino-acid oxidase activity
G0:0047006
                    17-alpha, 20-alpha-dihydroxypregn-4-en-3-one dehydrogenase activity
G0:2000721
                    positive regulation of transcription from RNA polymerase II promoter
involved in smooth muscle cell differentiation
G0:2000726 2
                    negative regulation of cardiac muscle cell differentiation
G0:2000098
           2
                    negative regulation of smooth muscle cell-matrix adhesion
                    endonucleolytic cleavage to generate mature 3'-end of SSU-rRNA from (SSU-
GO:0000461
rRNA, 5.8S rRNA, LSU-rRNA)
G0:0032304 2
                   negative regulation of icosanoid secretion
                    positive regulation of icosanoid secretion
G0:0032305
G0:0032301
                    MutSalpha complex
G0:0032302
                    MutSbeta complex
            2
                    negative regulation of forebrain neuron differentiation
G0:2000978
            2
G0:0015248
                    sterol transporter activity
GO: 0050347
                    trans-octaprenyltranstransferase activity
            2
G0:0021623
            2
                    oculomotor nerve formation
                    production of molecular mediator involved in inflammatory response
G0:0002532
G0:0048878
            2
                    chemical homeostasis
G0:0002537
            2
                    nitric oxide production involved in inflammatory response
G0:0046013
           2
                    regulation of T cell homeostatic proliferation
                   Fc receptor signaling pathway positive regulation of mononuclear cell migration
G0:0038093
            2
GO:0071677
            2
G0:0071676
                    negative regulation of mononuclear cell migration
G0:0071670
            2
                    smooth muscle cell chemotaxis
            2
G0:0071673
                    positive regulation of smooth muscle cell chemotaxis
G0:0071672
                    negative regulation of smooth muscle cell chemotaxis
           2
G0:0030305
                    heparanase activity
                    ceramide cholinephosphotransferase activity
G0:0047493
            2
G0:0061113 2
                    pancreas morphogenesis
```

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G0:0072210 2
G0:0042745 2
                    metanephric nephron development
                    circadian sleep/wake cycle
G0:0006532 2
                    aspartate biosynthetic process
G0:0070375 2
G0:0072134 2
                    ERK5 cascade
                    nephrogenic mesenchyme morphogenesis
                    positive regulation of cysteine-type endopeptidase activity involved in
G0:2001269 2
apoptotic signaling pathway
G0:2001268
            2
                    negative regulation of cysteine-type endopeptidase activity involved in
apoptotic signaling pathway
G0:0031213 2
G0:0031732 2
                    RSF complex
                    CCR7 chemokine receptor binding
G0:0048320 2
                    axial mesoderm formation
G0:0004392 2
G0:0044322 2
                    heme oxygenase (decyclizing) activity endoplasmic reticulum quality control compartment
                    establishment of meiotic spindle localization
G0:0051295
            2
G0:0051294
                    establishment of spindle orientation
                    adenylylsulfate kinase activity
G0:0004020
            2
G0:0032798
                    Swi5-Sfr1 complex
            2
G0:0032796
                    uropod organization
G0:0071864
                    positive regulation of cell proliferation in bone marrow
                    negative regulation of lamellipodium morphogenesis
G0:2000393
            2
G0:0006880
                    intracellular sequestering of iron ion
G0:0038156
            2
                    interleukin-3-mediated signaling pathway
                    interleukin-23-mediated signaling pathway
G0:0038155
G0:0070449
            2
                    elongin complex
G0:0016524
                    latrotoxin receptor activity
G0:0070445
                    regulation of oligodendrocyte progenitor proliferation
G0:0034505
            2
                    tooth mineralization
G0:0060341
            2
                    regulation of cellular localization
                    phosphatidylcholine catabolic process
G0:0034638
G0:0097233
                    alveolar lamellar body membrane
G0:0015819
                    lysine transport
G0:0060435
                    bronchiole development
GO:0060437
            2
                    lung growth
G0:0046755
                    viral budding
G0:0046208
                    spermine catabolic process
GO:0005965
            2
                    protein farnesyltransferase complex
G0:0051935
            2
                    L-glutamate uptake involved in synaptic transmission
G0:0045953
                    negative regulation of natural killer cell mediated cytotoxicity
G0:0045950
            2
                    negative regulation of mitotic recombination
G0:1903225
                    negative regulation of endodermal cell differentiation
G0:1902174
                    positive regulation of keratinocyte apoptotic process
G0:0031914
                    negative regulation of synaptic plasticity
G0:1990034
            2
                    calcium ion export from cell
                    cGMP-inhibited cyclic-nucleotide phosphodiesterase activity
G0:0004119
G0:0004565
            2
                    beta-galactosidase activity
G0:0008074
                    guanylate cyclase complex, soluble
G0:0016890
                    site-specific endodeoxyribonuclease activity, specific for altered base
G0:0048179
                    activin receptor complex
            2
GO:0000010
                    trans-hexaprenyltranstransferase activity
G0:0003938
                    IMP dehydrogenase activity
G0:0003934
            2
                    GTP cyclohydrolase I activity
G0:0009798
            2
                    axis specification
G0:1902177
                    positive regulation of oxidative stress-induced intrinsic apoptotic
signaling pathway
G0:0010643
                    cell communication by chemical coupling
G0:0070970 2
                    interleukin-2 secretion
G0:0036324 2
G0:0000272 2
                    vascular endothelial growth factor receptor-2 signaling pathway
                    polysaccharide catabolic process
G0:0007549
                    dosage compensation
G0:0015265
                    urea channel activity
            2
G0:0015266
            2
                    protein channel activity
                    positive regulation of hemoglobin biosynthetic process
G0:0046985
G0:0046984
            2
                    regulation of hemoglobin biosynthetic process
G0:0019958
            2
                    C-X-C chemokine binding
G0:0019776
                    Atg8 ligase activity
G0:0019950
            2
                    SMT3-dependent protein catabolic process
GO:0071472
            2
                    cellular response to salt stress
G0:0010565
                    regulation of cellular ketone metabolic process
G0:0071475
            2
                    cellular hyperosmotic salinity response
            2
G0:0001866
                    NK T cell proliferation
G0:0001865
                    NK T cell differentiation
            2
                    negative regulation of complement activation, lectin pathway
GO:0001869
G0:0051747
            2
                    cytosine C-5 DNA demethylase activity
G0:0071315 2
                    cellular response to morphine
```

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positive regulation of granulocyte colony-stimulating factor production negative regulation of macromitophagy
G0:0071657 2
G0:1901525 2
G0:0030327 2
                    prenylated protein catabolic process
           2
G0:0030328
                    prenylcysteine catabolic process
G0:0035759
            2
                    mesangial cell-matrix adhesion
                    cortical microtubule cytoskeleton
G0:0030981
G0:0070845
            2
                    polyubiquitinated misfolded protein transport
G0:0031056
            2
                    regulation of histone modification
G0:0015616
            2
                    DNA translocase activity
G0:0016539
                    intein-mediated protein splicing
            2
G0:0043584
            2
                    nose development
G0:0043585
            2
                    nose morphogenesis
G0:0033188
                    sphingomyelin synthase activity
            2
            2
G0:0016532
                    superoxide dismutase copper chaperone activity
G0:0016534
                    cyclin-dependent protein kinase 5 activator activity
G0:0030187
            2
                    melatonin biosynthetic process
G0:0014916
            2
                    regulation of lung blood pressure
                    morphogenesis of a branching epithelium
G0:0061138
GO: 0042226
            2
                    interleukin-6 biosynthetic process
G0:0072236
            2
                    metanephric loop of Henle development
                    C-8 sterol isomerase activity
GO:0000247
G0:0004951
            2
                    cholecystokinin receptor activity
G0:0004956
            2
                    prostaglandin D receptor activity
G0:0060086
            2
                    circadian temperature homeostasis
                    regulation \ of \ inositol \ 1,4,5-trisphosphate-sensitive \ calcium-release
G0:0031585
            2
channel activity
G0:0060667 2
                    branch elongation involved in salivary gland morphogenesis
G0:0060661
                    submandibular salivary gland formation
G0:0031716
            2
                    calcitonin receptor binding
G0:0002072 2
                    optic cup morphogenesis involved in camera-type eye development
G0:0048343 2
G0:0034982 2
G0:0048343
                    paraxial mesodermal cell fate commitment
                    mitochondrial protein processing
G0:0010025 2
                    wax biosynthetic process
G0:0050510 2
                    N-acetylgalactosaminyl-proteoglycan 3-beta-glucuronosyltransferase
activity
G0:0010792 2
                    DNA double-strand break processing involved in repair via single-strand
annealing
G0:0032807
            2
                    DNA ligase IV complex
G0:0032770 2
                    positive regulation of monooxygenase activity
                    regulation of low-density lipoprotein particle receptor catabolic process
G0:0032803
            2
G0:0032513
            2
                    negative regulation of protein phosphatase type 2B activity
                    signaling receptor activity
G0:0038023
            2
G0:0008623
                    CHRAC
            2
G0:0004560
            2
                    alpha-L-fucosidase activity
G0:0032044
                    DSIF complex
G0:0019542
            2
                    propionate biosynthetic process
G0:0070681
                    glutaminyl-tRNAGln biosynthesis via transamidation
G0:0032116
                    SMC loading complex
G0:0004450
           2
                    isocitrate dehydrogenase (NADP+) activity
G0:0045519
                    interleukin-23 receptor binding
                    interleukin-22 receptor binding
G0:0045518
G0:0071226
            2
                    cellular response to molecule of fungal origin
                    olfactory lobe development
G0:0021988
            2
G0:0008078
                    mesodermal cell migration
G0:0021986
            2
                    habenula development
            2
G0:0007092
                    activation of mitotic anaphase-promoting complex activity
G0:0046226
                    coumarin catabolic process
G0:0046732
            2
                    active induction of host immune response by virus
G0:0048753
            2
                    pigment granule organization
G0:0010465
                    nerve growth factor receptor activity
G0:0044259
                    multicellular organismal macromolecule metabolic process
            2
G0:1903206
            2
                    negative regulation of hydrogen peroxide-induced cell death
                    folic acid-containing compound metabolic process
GO:0006760
            2
G0:0018675
            2
                    (S)-limonene 6-monooxygenase activity
G0:0060414
            2
                    aorta smooth muscle tissue morphogenesis
G0:0000019
            2
                    regulation of mitotic recombination
            2
G0:0048486
                    parasympathetic nervous system development
G0:0048627
            2
                    myoblast development
G0:0042732
                    D-xylose metabolic process
GO: 1902336
            2
                    positive regulation of retinal ganglion cell axon guidance
            2
                    negative regulation of acute inflammatory response to antigenic stimulus
G0:0002865
G0:0051315 2
                    attachment of spindle microtubules to kinetochore involved in mitotic
sister chromatid segregation
G0:0019201 2
                    nucleotide kinase activity
G0:0019207 2
                    kinase regulator activity
```

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G0:2000766 2
G0:0005846 2
                    negative regulation of cytoplasmic translation
                    nuclear cap binding complex
                    positive regulation of potassium ion transmembrane transporter activity
G0:1901018 2
            2
G0:1901019
                    regulation of calcium ion transmembrane transporter activity
G0:0023041
                    neuronal signal transduction
                    laminin-2 complex
G0:0005607
G0:0003223
                    ventricular compact myocardium morphogenesis
G0:0034421
                    post-translational protein acetylation
                    taurine biosynthetic process
G0:0042412
G0:0005592
            2
                    collagen type XI trimer
G0:0003093
            2
                    regulation of glomerular filtration
                    renal water transport
G0:0003097
            2
G0:0017171
                    serine hydrolase activity
            2
G0:0006570
                    tyrosine metabolic process
G0:0006577
                    amino-acid betaine metabolic process
GO:0006579
            2
                    amino-acid betaine catabolic process
            2
G0:0032810
                    sterol response element binding
G0:0060060
                    post-embryonic retina morphogenesis in camera-type eye
GO:0060061
            2
                    Spemann organizer formation
            2
GO:0060067
                    cervix development
G0:0072334
            2
                    UDP-galactose transmembrane transport
G0:0072331
                    signal transduction by p53 class mediator
            2
                    regulation of plasma lipoprotein particle levels regulation of kinetochore assembly
G0:0097006
            2
G0:0090234
            2
G0:0035483
            2
                    gastric emptying
G0:0009262
            2
                    deoxyribonucleotide metabolic process
G0:0005006
                    epidermal growth factor-activated receptor activity
G0:0048368
            2
                    lateral mesoderm development
G0:0051126
            2
                    negative regulation of actin nucleation
                    synaptic growth at neuromuscular junction
G0:0051124
G0:0051120
                    hepoxilin A3 synthase activity
            2
            2
                    canonical Wnt signaling pathway involved in mesenchymal stem cell
G0:0044338
differentiation
G0:0034694 2
G0:0036315 2
                    response to prostaglandin
                    cellular response to sterol
G0:0060443 2
                    mammary gland morphogenesis
G0:0032286 2
G0:0003878 2
                    central nervous system myelin maintenance
                    ATP citrate synthase activity
G0:1901224
                    positive regulation of NIK/NF-kappaB signaling
GO:0003870
            2
                    5-aminolevulinate synthase activity
G0:0003875
                    ADP-ribosylarginine hydrolase activity
                    glutamate catabolic process to aspartate
GO:0019550
G0:0004069
                    L-aspartate:2-oxoglutarate aminotransferase activity
            2
G0:0061547
            2
                    glycogen synthase activity, transferring glucose-1-phosphate
G0:0004063
                    aryldialkylphosphatase activity
                    peptide antigen-transporting ATPase activity
G0:0015433
            2
                    NADH binding
G0:0070404
G0:0032447
                    protein urmylation
                    diamine N-acetyltransferase activity linoleate 13S-lipoxygenase activity
G0:0004145
            2
G0:0016165
G0:0071752
                    secretory dimeric IgA immunoglobulin complex
G0:0071207
            2
                    histone pre-mRNA stem-loop binding
G0:0015851
            2
                    nucleobase transport
G0:0072554
                    blood vessel lumenization
G0:0097493
            2
                    structural molecule activity conferring elasticity
            2
G0:0030060
                    L-malate dehydrogenase activity
G0:0061074
                    regulation of neural retina development
G0:0046006
            2
                    regulation of activated T cell proliferation
            2
G0:0060478
                    acrosomal vesicle exocytosis
G0:0044058
                    regulation of digestive system process
G0:0000805
                    X chromosome
            2
            2
                    translational frameshifting
G0:0006452
GO:0009922
                    fatty acid elongase activity
G0:0072172
            2
                    mesonephric tubule formation
            2
G0:0006030
                    chitin metabolic process
G0:0006741
            2
                    NADP biosynthetic process
                    NADPH regeneration
G0:0006740
            2
                    regulation of phosphatidylinositol 3-kinase signaling
G0:0014066
            2
G0:0014062
                    regulation of serotonin secretion
G0:0031523
            2
                    Myb complex
            2
                    regulation of cardiac muscle hypertrophy
G0:0010611
G0:0015226
                    carnitine transmembrane transporter activity
GO:0015229
            2
                    L-ascorbic acid transporter activity
G0:0008292
            2
                    acetylcholine biosynthetic process
G0:0071437 2
                    invadopodium
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G0:0071436 2
G0:0001820 2
                    sodium ion export
                    serotonin secretion
G0:2000744 2
                    positive regulation of anterior head development
           2
                    regulation of stem cell division
G0:2000035
G0:0070345
            2
                    negative regulation of fat cell proliferation
                    lysophosphatidic acid phosphatase activity
G0:0052642 2
G0:0001650 2
G0:0021681 2
                    fibrillar center
                    cerebellar granular layer development
G0:0016577 2
                    histone demethylation
G0:0045875 2
G0:0072272 2
                    negative regulation of sister chromatid cohesion
                    proximal/distal pattern formation involved in metanephric nephron
development
G0:0002384 2
G0:2000563 2
                    hepatic immune response
                    positive regulation of CD4-positive, alpha-beta T cell proliferation
                    negative regulation of apoptotic process involved in metanephric
G0:1900215
            2
collecting duct development
G0:1900218 2
                    negative regulation of apoptotic process involved in metanephric nephron
tubule development
G0:0015677 2
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                    copper ion import
                    cell-cell signaling involved in mammary gland development
G0:0097021 2
                    lymphocyte migration into lymphoid organs
G0:0097539
           2
                    ciliary transition fiber
G0:0060621
            2
                    negative regulation of cholesterol import
                    glycolipid biosynthetic process
G0:0009247
G0:0021831
            2
                    embryonic olfactory bulb interneuron precursor migration
G0:0021836
                    chemorepulsion involved in postnatal olfactory bulb interneuron migration
G0:0008194
                    UDP-glycosyltransferase activity
                    ribonuclease MRP complex
G0:0000172
G0:0004084
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                    branched-chain-amino-acid transaminase activity
                    phospholipase C-activating serotonin receptor signaling pathway
G0:0007208
           2
                    positive regulation of cAMP-dependent protein kinase activity
G0:2000481
G0:2000482
                    regulation of interleukin-8 secretion
G0:0016531
                    copper chaperone activity
           2
                    polar body extrusion after meiotic divisions
GO:0040038
G0:0040030
            2
                    regulation of molecular function, epigenetic
                    nucleotide-binding oligomerization domain containing 1 signaling pathway
G0:0070427
           2
                    MSL complex
G0:0072487
G0:0033065
                    Rad51C-XRCC3 complex
                    renal inner medulla development
G0:0072053
G0:0045175
            2
                    basal protein localization
G0:0033605
                    positive regulation of catecholamine secretion
                    formate-tetrahydrofolate ligase activity
GO:0004329
G0:0018126
                    protein hydroxylation
G0:0001030
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                    RNA polymerase III type 1 promoter DNA binding
                    RNA polymerase III type 2 promoter DNA binding
G0:0001031
           2
G0:0001032
                    RNA polymerase III type 3 promoter DNA binding
G0:0003413
                    chondrocyte differentiation involved in endochondral bone morphogenesis
G0:0030007
                    cellular potassium ion homeostasis
G0:0061056 2
G0:0061052 2
                    sclerotome development
                    negative regulation of cell growth involved in cardiac muscle cell
development
           2
G0:0003689
                    DNA clamp loader activity
G0:0004507
            2
                    steroid 11-beta-monooxygenase activity
G0:1902110 2
                    positive regulation of mitochondrial membrane permeability involved in
apoptotic process
G0:0006011 2
                    UDP-glucose metabolic process
G0:0048664 2
                    neuron fate determination
G0:0005275 2
G0:0048669 2
G0:0005275
                    amine transmembrane transporter activity
                    collateral sprouting in absence of injury
G0:0014042 2
                    positive regulation of neuron maturation
           2
G0:0072102
                    glomerulus morphogenesis
G0:0072104
                    glomerular capillary formation
                    cellular response to dsRNA
G0:0071359
G0:1902808
            2
                    positive regulation of cell cycle G1/S phase transition
                    negative regulation of phosphatidylinositol biosynthetic process
G0:0010512
            2
G0:0039529
           2
                    RIG-I signaling pathway
G0:0039528 2
                    cytoplasmic pattern recognition receptor signaling pathway in response to
virus
G0:0007521
                    muscle cell fate determination
G0:0007525
            2
                    somatic muscle development
G0:0003998
            2
                    acylphosphatase activity
G0:0003994 2
                    aconitate hydratase activity
           2
G0:0003990
                    acetylcholinesterase activity
                    vesicle transport along actin filament
G0:0030050
            2
G0:0032042 2
                    mitochondrial DNA metabolic process
```

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G0:2000019 2
G0:2000010 2
                    negative regulation of male gonad development
                    positive regulation of protein localization to cell surface
                    histone kinase activity (H3-T3 specific)
G0:0072354 2
            2
G0:0032071
                    regulation of endodeoxyribonuclease activity
G0:0008413
            2
                    8-oxo-7,8-dihydroguanosine triphosphate pyrophosphatase activity
G0:2000860
                    positive regulation of aldosterone secretion
G0:0042171
                    lysophosphatidic acid acyltransferase activity
G0:0043564
            2
                    Ku70:Ku80 complex
G0:0003057
                    regulation of the force of heart contraction by chemical signal
G0:0003050 2
                    regulation of systemic arterial blood pressure by atrial natriuretic
peptide
G0:0070369
                    beta-catenin-TCF7L2 complex
G0:0042287
                    MHC protein binding
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G0:0033292
                    T-tubule organization
G0:0019860
            2
                    uracil metabolic process
G0:0019865
            2
                    immunoglobulin binding
            2
G0:0031034
                    myosin filament assembly
                    leukocyte adhesive activation
G0:0050902
G0:0050906
            2
                    detection of stimulus involved in sensory perception
G0:0050904
            2
                    diapedesis
G0:0097049
                    motor neuron apoptotic process
                    negative regulation of glycogen catabolic process positive regulation of glycogen catabolic process
GO:0045818
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G0:0045819
            2
G0:0055090
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                    acylglycerol homeostasis
G0:0090091
            2
                    positive regulation of extracellular matrix disassembly
G0:0009220
            2
                    pyrimidine ribonucleotide biosynthetic process
G0:0046108
           2
                    uridine metabolic process
G0:0046101
            2
                    hypoxanthine biosynthetic process
G0:0048858
            2
                    cell projection morphogenesis
G0:0002019
            2
                    regulation of renal output by angiotensin
                    regulation of blood volume by renal aldosterone
G0:0002017
            2
            2
G0:0005042
                    netrin receptor activity
                    replication fork protection complex tRNA (guanine-N7-)-methyltransferase activity
G0:0031298
G0:0008176
            2
            2
G0:0008177
                    succinate dehydrogenase (ubiquinone) activity
                    tRNA methyltransferase activity
G0:0008175
GO:0000152
            2
                    nuclear ubiquitin ligase complex
G0:0004314
            2
                    [acyl-carrier-protein] S-malonyltransferase activity
                    3-oxoacyl-[acyl-carrier-protein] synthase activity
G0:0004315
G0:0008318
            2
                    protein prenyltransferase activity
            2
G0:0045244
                    succinate-CoA ligase complex (GDP-forming)
                    medium-chain-acyl-CoA dehydrogenase activity
G0:0070991
G0:0001672
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                    regulation of chromatin assembly or disassembly
G0:0042903
            2
                    tubulin deacetylase activity
G0:0034111
                    negative regulation of homotypic cell-cell adhesion
G0:0070193
            2
                    synaptonemal complex organization
G0:0015386
                    potassium:proton antiporter activity
G0:0015382
                    sodium:sulfate symporter activity
G0:0033594
            2
                    response to hydroxyisoflavone
G0:0033041
                    sweet taste receptor activity
G0:0010960
                    magnesium ion homeostasis
G0:0001785
            2
                    prostaglandin J receptor activity
                    regulation of gluconeogenesis involved in cellular glucose homeostasis
G0:0090526
            2
G0:0051424
                    corticotropin-releasing hormone binding
                    ER-associated misfolded protein catabolic process
GO:0071712
            2
            2
G0:0030249
                    guanylate cyclase regulator activity
G0:0008459
                    chondroitin 6-sulfotransferase activity
G0:0034988
            2
                    Fc-gamma receptor I complex binding
G0:1901621 2
                    negative regulation of smoothened signaling pathway involved in
dorsal/ventral neural tube patterning
G0:0033624 2
G0:1990254 2
                    negative regulation of integrin activation
                    keratin filament binding
                    regulation of myosin-light-chain-phosphatase activity
G0:0035507 2
G0:0061035
                    regulation of cartilage development
            2
            2
G0:0061032
                    visceral serous pericardium development
G0:0061033
            2
                    secretion by lung epithelial cell involved in lung growth
G0:0031990
            2
                    mRNA export from nucleus in response to heat stress
G0:0031999
            2
                    negative regulation of fatty acid beta-oxidation
G0:0006784
                    heme a biosynthetic process
GO:0070232
            2
                    regulation of T cell apoptotic process
            2
G0:0002134
                    UTP binding
G0:0004781
                    sulfate adenylyltransferase (ATP) activity
           2
G0:0031371
                    ubiquitin conjugating enzyme complex
G0:0031372
            2
                    UBC13-MMS2 complex
G0:0072126 2
                    positive regulation of glomerular mesangial cell proliferation
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G0:0032388 2
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                    positive regulation of intracellular transport
                    anion channel activity
                    regulation of asymmetric cell division
G0:0009786 2
G0:0009785
                    blue light signaling pathway
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G0:0010652
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                    positive regulation of cell communication by chemical coupling
                    medium-chain fatty acid transport
G0:0001579
G0:2000078
                    positive regulation of type B pancreatic cell development
G0:0008781
                    N-acylneuraminate cytidylyltransferase activity
                    regulation of type B pancreatic cell development
G0:2000074
G0:0038037
                    G-protein coupled receptor dimeric complex
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G0:0032055
                    negative regulation of translation in response to stress
G0:0035880
            2
                    embryonic nail plate morphogenesis
G0:0035887
                    aortic smooth muscle cell differentiation
G0:0019264
                    glycine biosynthetic process from serine
                    glycine biosynthetic process, by transamination of glyoxylate regulation of myeloid cell apoptotic process
G0:0019265
G0:0033032
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G0:0090427
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                    activation of meiosis
                    detection of oxygen
GO:0003032
GO:0043503
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                    skeletal muscle fiber adaptation
G0:0072070
                    loop of Henle development
G0:0070384
                    Harderian gland development
G0:0047696
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                    beta-adrenergic receptor kinase activity
G0:0071035
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                    nuclear polyadenylation-dependent rRNA catabolic process
G0:0015891
                    siderophore transport
G0:0034593
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                    phosphatidylinositol-4,5-bisphosphate 4-phosphatase activity
G0:0034594
            2
                    phosphatidylinositol trisphosphate phosphatase activity
G0:0019842
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                    vitamin binding
G0:0060003
            2
                    copper ion export
                    positive regulation of vitamin D biosynthetic process
G0:0060557
            2
G0:0050925
            2
                    negative regulation of negative chemotaxis
            2
G0:0034046
                    poly(G) binding
G0:0050922
                    negative regulation of chemotaxis
GO:0097061
                    dendritic spine organization
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            2
G0:0031800
                    type 3 metabotropic glutamate receptor binding
G0:0045837
                    negative regulation of membrane potential
G0:0048633
            2
                    positive regulation of skeletal muscle tissue growth
G0:0048875
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                    chemical homeostasis within a tissue
G0:0048871
                    multicellular organismal homeostasis
G0:0034686
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                    integrin alphav-beta8 complex
            2
G0:0065001
                    specification of axis polarity
G0:0034681
                    integrin alphall-betal complex
G0:0048257
                    3'-flap endonuclease activity
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G0:0048256
            2
                    flap endonuclease activity
G0:0045161
                    neuronal ion channel clustering
                    phosphorylation of RNA polymerase II C-terminal domain
GO:0070816
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G0:0004335
                    galactokinase activity
G0:0004337
                    geranyltranstransferase activity
G0:0008332
                    low voltage-gated calcium channel activity
                    SWI/SNF superfamily-type complex
G0:0070603
G0:0070977
                    bone maturation
GO:0061005
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                    cell differentiation involved in kidney development
G0:0050942
            2
                    positive regulation of pigment cell differentiation
G0:0021903
                    rostrocaudal neural tube patterning
G0:0004477
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                    methenyltetrahydrofolate cyclohydrolase activity
G0:0018676
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                    (S)-limonene 7-monooxygenase activity
                    male germ-line sex determination
GO:0019100
G0:0002315
                    marginal zone B cell differentiation
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G0:0032998
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                    Fc-epsilon receptor I complex
G0:0052869
                    arachidonic acid omega-hydroxylase activity
                    basophil differentiation
GO:0030221
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G0:0030223
            2
                    neutrophil differentiation
                    eosinophil differentiation
G0:0030222
G0:0061017
            2
                    hepatoblast differentiation
G0:0042321
                    negative regulation of circadian sleep/wake cycle, sleep
G0:0042323
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                    negative regulation of circadian sleep/wake cycle, non-REM sleep
            2
G0:0042322
                    negative regulation of circadian sleep/wake cycle, REM sleep
GO:0006272
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                    leading strand elongation
G0:0042328
                    heparan sulfate N-acetylglucosaminyltransferase activity
                    regulation of cardiac muscle contraction by calcium ion signaling
G0:0010882
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                    cytoplasmic cyclin-dependent protein kinase holoenzyme complex
G0:0000308
GO:0010571
                    positive regulation of nuclear cell cycle DNA replication
                    cysteinyl-tRNA aminoacylation
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GO:0009949
            2
                    polarity specification of anterior/posterior axis
G0:0006051 2
                    N-acetylmannosamine metabolic process
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                    positive regulation of epithelial cell proliferation involved in prostate
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                    regulation of epithelial cell proliferation involved in prostate gland
development
G0:0031314 2
                    extrinsic component of mitochondrial inner membrane
G0:0060760 2
G0:0050713 2
                    positive regulation of response to cytokine stimulus
                    negative regulation of interleukin-1 beta secretion
G0:0050711 2
                    negative regulation of interleukin-1 secretion
            2
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                    organ senescence
G0:0050717
                    positive regulation of interleukin-1 alpha secretion
G0:0048403
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                    brain-derived neurotrophic factor binding
G0:0050432
                    catecholamine secretion 11-cis retinal binding
G0:0005502
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G0:0004103
            2
                    choline kinase activity
G0:0004105
                    choline-phosphate cytidylyltransferase activity
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G0:0004109
            2
                    coproporphyrinogen oxidase activity
G0:0046922
                    peptide-O-fucosyltransferase activity
G0:0001550
            2
                    ovarian cumulus expansion
G0:1902510
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GO:0001555
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G0:0001888 2
G0:0001554
                    luteolysis
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activity
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                    response to high density lipoprotein particle
G0:0055096
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                    low-density lipoprotein particle mediated signaling
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G0:2000054 2
axis specification
G0:2000051 2
                    negative regulation of non-canonical Wnt signaling pathway
G0:0032038 2
                    myosin II heavy chain binding
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G0:1901094 2
G0:0008453 2
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                    alanine-glyoxylate transaminase activity
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                    [hydroxymethylglutaryl-CoA reductase (NADPH)] kinase activity
G0:0042132
                    fructose 1,6-bisphosphate 1-phosphatase activity
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G0:1901894
            2
                    regulation of calcium-transporting ATPase activity
G0:0003012
                    muscle system process
G0:0021592
            2
                    fourth ventricle development
                    positive regulation of metanephric DCT cell differentiation
G0:2000594
            2
G0:0034205
                    beta-amyloid formation
                    positive regulation of long-term synaptic potentiation
GO: 1900273
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G0:1900271
            2
                    regulation of long-term synaptic potentiation
                    aspartic-type endopeptidase inhibitor activity
G0:0019828
G0:0060577
            2
                    pulmonary vein morphogenesis
G0:0090325
            2
                    regulation of locomotion involved in locomotory behavior
                    plasma membrane long-chain fatty acid transport
G0:0015911
G0:0046499
            2
                    S-adenosylmethioninamine metabolic process
G0:0002762
                    negative regulation of myeloid leukocyte differentiation
G0:0034344
                    regulation of type III interferon production
                    histidyl-tRNA aminoacylation
G0:0006427
G0:0006424
                    glutamyl-tRNA aminoacylation
G0:0006420
                    arginyl-tRNA aminoacylation
G0:0009882
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                    blue light photoreceptor activity
                    isoleucyl-tRNA aminoacylation
G0:0006428
            2
G0:0006429
                    leucyl-tRNA aminoacylation
G0:0035339
                    SPOTS complex
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G0:0086089 2
                    voltage-gated potassium channel activity involved in atrial cardiac muscle
cell action potential repolarization
G0:0060685 2
G0:0052815 2
                    regulation of prostatic bud formation
                    medium-chain acyl-CoA hydrolase activity
G0:0019086 2
                    late viral transcription
G0:0000117 2
                    regulation of transcription involved in G2/M transition of mitotic cell
cycle
G0:0042498 2
                    diacyl lipopeptide binding
G0:0004356
                    glutamate-ammonia ligase activity
G0:0042495
                    detection of triacyl bacterial lipopeptide
G0:0004352
            2
                    glutamate dehydrogenase (NAD+) activity
                    branched-chain amino acid metabolic process
G0:0009081
            2
                    branched-chain amino acid biosynthetic process
G0:0009082
            2
G0:0045204
                    MAPK export from nucleus
G0:0031436
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                    BRCA1-BARD1 complex
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G0:0090140
                    regulation of mitochondrial fission
G0:0035994
                    response to muscle stretch
G0:0003207
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                    cardiac chamber formation
G0:0070488
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                    neutrophil aggregation
G0:0070483 2
                    detection of hypoxia
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G0:0007468 2
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                    regulation of rhodopsin gene expression
                    multicellular organismal metabolic process
                    positive regulation of norepinephrine secretion
G0:0010701 2
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G0:0003209
                    cardiac atrium morphogenesis
G0:0035566
                    regulation of metanephros size
GO:0090537
                    CERF complex
G0:0051562
                    negative regulation of mitochondrial calcium ion concentration
G0:0015129
                    lactate transmembrane transporter activity
G0:0010447
                    response to acidity
                    negative regulation of transcription from RNA polymerase II promoter
G0:0007070
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during mitosis
G0:0071281 2
                    cellular response to iron ion
G0:0071286
                    cellular response to magnesium ion
G0:0071287
                    cellular response to manganese ion
                    glutaminase activity
G0:0004359
                    negative regulation of mast cell activation
G0:0033004
            2
G0:0033005
            2
                    positive regulation of mast cell activation
G0:0004357
                    glutamate-cysteine ligase activity
G0:0030200
                    heparan sulfate proteoglycan catabolic process
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G0:0004353
                    glutamate dehydrogenase [NAD(P)+] activity
G0:0032510
                    endosome to lysosome transport via multivesicular body sorting pathway
GO:1901661
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                    quinone metabolic process
G0:0061564
            2
                    axon development
G0:0005945
                    6-phosphofructokinase complex
G0:0002667
            2
                    regulation of T cell anergy
G0:0042309
                    homoiothermy
G0:0047150
                    betaine-homocysteine S-methyltransferase activity
G0:0015193
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                    L-proline transmembrane transporter activity
G0:0043316
            2
                    cytotoxic T cell degranulation
G0:0043314
           2
                    negative regulation of neutrophil degranulation
G0:0043313
            2
                    regulation of neutrophil degranulation
GO:0006212
                    uracil catabolic process
G0:0004854
                    xanthine dehydrogenase activity
                    electron-transferring-flavoprotein dehydrogenase activity
G0:0004174
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            2
G0:0050882
                    voluntary musculoskeletal movement
G0:1903202
                    negative regulation of oxidative stress-induced cell death
G0:0031339
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                    negative regulation of vesicle fusion
G0:0060215
            2
                    primitive hemopoiesis
G0:0060748
                    tertiary branching involved in mammary gland duct morphogenesis
G0:0008252
                    nucleotidase activity
            2
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G0:0050779
                    RNA destabilization
G0:0097324
                    melanocyte migration
G0:0022839
            2
                    ion gated channel activity
G0:0030641
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                    regulation of cellular pH
                    malonyl-CoA biosynthetic process
G0:2001295
G0:0036304
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                    umbilical cord morphogenesis
G0:1990380
                    Lys48-specific deubiquitinase activity
G0:0070564
                    positive regulation of vitamin D receptor signaling pathway
G0:0002246
                    wound healing involved in inflammatory response
                    positive regulation of activation of membrane attack complex
GO:0001970
G0:0004161
                    dimethylallyltranstransferase activity
G0:0016402
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                    pristanoyl-CoA oxidase activity
                    negative regulation of sodium ion transmembrane transporter activity
G0:2000650
            2
G0:0031060
                    regulation of histone methylation
G0:1901299
            2
                    negative regulation of hydrogen peroxide-mediated programmed cell death
                    negative regulation of histone methylation
G0:0031061
G0:0035565
                    regulation of pronephros size
                    telomeric RNA binding
G0:0070034
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                    synaptobrevin 2-SNAP-25-syntaxin-1a-complexin II complex
G0:0070033
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G0:1901877
                    negative regulation of calcium ion binding
                    negative regulation of post-translational protein modification extrinsic component of Golgi membrane
GO: 1901874
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G0:0090498
G0:0032541
                    cortical endoplasmic reticulum
G0:0016314
                    phosphatidylinositol-3,4,5-trisphosphate 3-phosphatase activity
            2
G0:0016316
            2
                    phosphatidylinositol-3,4-bisphosphate 4-phosphatase activity
G0:0034551
                    mitochondrial respiratory chain complex III assembly
G0:0009628
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                    response to abiotic stimulus
                    semaphorin-plexin signaling pathway involved in bone trabecula
G0:1900220
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morphogenesis
                    sperm fibrous sheath regulation of telomere maintenance
G0:0035686
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G0:0032204
G0:0035354 2
                    Toll-like receptor 1-Toll-like receptor 2 protein complex
           2
G0:0035355
                    Toll-like receptor 2-Toll-like receptor 6 protein complex
G0:0032202
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                    telomere assembly
G0:0035358 2
                    regulation of peroxisome proliferator activated receptor signaling pathway
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signaling pathway
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                   snRNA export from nucleus
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                   cholesterol O-acyltransferase activity
G0:0006407 2
                   rRNA export from nucleus
                   hepatocyte growth factor receptor binding
G0:0005171
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G0:0008119
                   thiopurine S-methyltransferase activity
                   positive regulation of skeletal muscle fiber development
G0:0048743
G0:0005174
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                   CD40 receptor binding
G0:0004373
                   glycogen (starch) synthase activity
G0:0004379
                   glycylpeptide N-tetradecanoyltransferase activity
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                   negative regulation of metalloendopeptidase activity involved in amyloid
precursor protein catabolic process
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                   positive regulation of protein localization to early endosome
G0:0090169
                   regulation of spindle assembly
G0:0090166
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                   Golgi disassembly
G0:0090160 2
                   Golgi to lysosome transport
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G0:0032227
                   negative regulation of synaptic transmission, dopaminergic
G0:0044216
                   other organism cell
G0:0009609
                   response to symbiotic bacterium
                   pentose biosynthetic process
G0:0019322
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G0:0014819
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                   regulation of skeletal muscle contraction
                   skeletal muscle satellite cell differentiation
G0:0014816
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                   dopamine uptake involved in synaptic transmission
G0:0051583
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G0:0051563
                   smooth endoplasmic reticulum calcium ion homeostasis
                   regulation of lymphocyte migration
G0:2000401
G0:0019144
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                   ADP-sugar diphosphatase activity
G0:0032483
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                   regulation of Rab protein signal transduction
                   regulation of Rap protein signal transduction
G0:0032487
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G0:0016670 2
                   oxidoreductase activity, acting on a sulfur group of donors, oxygen as
acceptor
G0:0016679 2
                   oxidoreductase activity, acting on diphenols and related substances as
donors
G0:0033578
                   protein glycosylation in Golgi
                   negative regulation of cerebellar granule cell precursor proliferation
G0:0021941
G0:0030884
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                   exogenous lipid antigen binding
G0:0030888
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                   regulation of B cell proliferation
                   glycosylceramidase activity
G0:0017042
G0:0045629
                   negative regulation of T-helper 2 cell differentiation
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G0:0000492
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                   box C/D snoRNP assembly
                   prenylated protein tyrosine phosphatase activity
GO:0004727
                   negative regulation of neurological system process
G0:0031645
G0:0031134
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                   sister chromatid biorientation
                   glyoxylate cycle
G0:0006097
           2
G0:0046619
                   optic placode formation involved in camera-type eye formation
G0:0031685
                   adenosine receptor binding
                   A2A adenosine receptor binding
G0:0031687
G0:0090312
                   positive regulation of protein deacetylation
                   intestinal epithelial structure maintenance
G0:0060729
G0:0043185
                   vascular endothelial growth factor receptor 3 binding
G0:0043532
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                   angiostatin binding
GO:0009450
            2
                   gamma-aminobutyric acid catabolic process
G0:0002268
                   follicular dendritic cell differentiation
G0:0005549
                   odorant binding
            2
                   tryptophan-tRNA ligase activity
G0:0004830
            2
G0:0046960 2
                   sensitization
G0:0048007 2
                   antigen processing and presentation, exogenous lipid antigen via MHC class
Ιb
G0:0018153
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G0:0035922
                   foramen ovale closure
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G0:0030109
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G0:1901857
                   positive regulation of cellular respiration
G0:0021551
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                   central nervous system morphogenesis
G0:0021882
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                   regulation of transcription from RNA polymerase II promoter involved in
forebrain neuron fate commitment
                   olfactory nerve development
G0:0021553
G0:0021557
                   oculomotor nerve development
G0:0021558 2
                   trochlear nerve development
           2
G0:0035461
                   vitamin transmembrane transport
                   peptide-methionine (R)-S-oxide reductase activity
G0:0033743
            2
G0:0021773
           2
                   striatal medium spiny neuron differentiation
           2
G0:0021778
                   oligodendrocyte cell fate specification
                   intracellular copper ion transport
G0:0015680
            2
G0:0071895 2
                   odontoblast differentiation
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G0:0071896 2
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                    protein localization to adherens junction
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G0:0002724 2
                    regulation of T cell cytokine production
G0:0002720
            2
                    positive regulation of cytokine production involved in immune response
G0:0038188
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                    cholecystokinin signaling pathway
G0:0038181
                    bile acid receptor activity
G0:0002093
                    auditory receptor cell morphogenesis
G0:0002431
                    Fc receptor mediated stimulatory signaling pathway
G0:0030976
                    thiamine pyrophosphate binding
G0:0048588
            2
                    developmental cell growth
G0:0035370
                    UBC13-UEV1A complex
G0:0045980
            2
                    negative regulation of nucleotide metabolic process
G0:0052852
                    very-long-chain-(S)-2-hydroxy-acid oxidase activity
G0:0003415
                    chondrocyte hypertrophy
G0:0043120
            2
                    tumor necrosis factor binding
G0:0005153
            2
                    interleukin-8 receptor binding
                    interleukin-1, Type II receptor binding interleukin-1, Type I receptor binding
G0:0005151
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G0:0005150
GO: 0045180
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                    basal cortex
G0:0070876
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G0:0004825
G0:0004821
                    histidine-tRNA ligase activity
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G0:0004822
            2
                    isoleucine-tRNA ligase activity
G0:0004823
                    leucine-tRNA ligase activity
            2
G0:0004829
                    threonine-tRNA ligase activity
            2
G0:0060392
            2
                    negative regulation of SMAD protein import into nucleus
                    positive regulation of aldosterone biosynthetic process
G0:0032349
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G0:0015204
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                    urea transmembrane transporter activity
G0:0015205
            2
                    nucleobase transmembrane transporter activity
                    positive regulation of amyloid precursor protein biosynthetic process
G0:0042986
            2
G0:0034098
            2
                    Cdc48p-Npl4p-Ufd1p AAA ATPase complex
G0:0010157
                    response to chlorate
                    cellular response to decreased oxygen levels
G0:0036294
GO:0008396
                    oxysterol 7-alpha-hydroxylase activity
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            2
G0:0014873
                    response to muscle activity involved in regulation of muscle adaptation
G0:0010485
                    H4 histone acetyltransferase activity
                    H3 histone acetyltransferase activity
G0:0010484
            2
G0:0001705
            2
                    ectoderm formation
G0:0032971
                    regulation of muscle filament sliding
                    cellular response to prostaglandin D stimulus chemokine (C-C motif) ligand 5 binding
G0:0071799
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G0:0071791
G0:0035963
                    cellular response to interleukin-13
G0:0019303
                    D-ribose catabolic process
            2
G0:0019307
            2
                    mannose biosynthetic process
G0:0032602
            2
                    chemokine production
G0:0045605
                    negative regulation of epidermal cell differentiation
            2
G0:0045608
                    negative regulation of auditory receptor cell differentiation
G0:0034189
                    very-low-density lipoprotein particle binding
G0:0072537
                    fibroblast activation
G0:0072536
                    interleukin-23 receptor complex
G0:0034184
                    positive regulation of maintenance of mitotic sister chromatid cohesion
G0:0031111
            2
                    negative regulation of microtubule polymerization or depolymerization
GO:0031119
            2
                    tRNA pseudouridine synthesis
G0:0006437
                    tyrosyl-tRNA aminoacylation
GO:0034769
            2
                    basement membrane disassembly
            2
G0:0097107
                    postsynaptic density assembly
G0:0035585
                    calcium-mediated signaling using extracellular calcium source
G0:0051797
            2
                    regulation of hair follicle development
G0:0051791
            2
                    medium-chain fatty acid metabolic process
G0:0097363
                    protein O-GlcNAc transferase activity
G0:2001162
                    positive regulation of histone H3-K79 methylation
            2
G0:1902202
            2
                    regulation of hepatocyte growth factor receptor signaling pathway
                    interleukin-1, Type II, blocking receptor activity
G0:0004910
G0:0003310
                    pancreatic A cell differentiation
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G0:0023052
            2
                    signaling
G0:0048020
            2
                    CCR chemokine receptor binding
                    positive regulation of melanin biosynthetic process
            2
G0:0048023
G0:0004613
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                    phosphoenolpyruvate carboxykinase (GTP) activity
G0:0004611
                    phosphoenolpyruvate carboxykinase activity
G0:0004616
            2
                    phosphogluconate dehydrogenase (decarboxylating) activity
            2
G0:0004615
                    phosphomannomutase activity
G0:0004618
                    phosphoglycerate kinase activity
GO:0070075
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                    tear secretion
G0:0034970
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                    histone H3-R2 methylation
G0:2000342 2
                    negative regulation of chemokine (C-X-C motif) ligand 2 production
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G0:2000346 2
G0:2000587 2
                    negative regulation of hepatocyte proliferation
                    negative regulation of platelet-derived growth factor receptor-beta
signaling pathway
G0:0021759 2
G0:0021750 2
                    globus pallidus development
                    vestibular nucleus development
G0:1901838 2
                    positive regulation of transcription of nuclear large rRNA transcript from
RNA polymerase I promoter
G0:2000394 2
                    positive regulation of lamellipodium morphogenesis
G0:0035403 2
                    histone kinase activity (H3-T6 specific)
G0:0090336 2
                    positive regulation of brown fat cell differentiation
G0:0033093
            2
                    Weibel-Palade body
G0:0060219
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                    camera-type eye photoreceptor cell differentiation
                    maintenance of mitochondrion location
G0:0051659
            2
            2
G0:0051654
                    establishment of mitochondrion localization
                    arginine-tRNA ligase activity
G0:0004814
            2
                    positive regulation of immature T cell proliferation in thymus positive regulation of trophoblast cell migration
G0:0033092
            2
G0:1901165
            2
G0:0048561
                    establishment of organ orientation
G0:0048563
                    post-embryonic organ morphogenesis
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G0:0017002
            2
                    activin-activated receptor activity
G0:0017004
            2
                    cytochrome complex assembly
G0:0052870
            2
                    tocopherol omega-hydroxylase activity
G0:0086029
            2
                    Purkinje myocyte to ventricular cardiac muscle cell signaling
                    glycerol biosynthetic process
G0:0006114
GO:0043148
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                    mitotic spindle stabilization
G0:0005137
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                    interleukin-5 receptor binding
                    interferon-gamma receptor binding
G0:0005133
            2
                    sodium-dependent L-ascorbate transmembrane transporter activity
G0:0070890
            2
G0:0044062
            2
                    regulation of excretion
G0:0090291
                    negative regulation of osteoclast proliferation
                    N-acetylgalactosamine-4-sulfatase activity
G0:0003943
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G0:0008124
            2
                    4-alpha-hydroxytetrahydrobiopterin dehydratase activity
G0:0007402
                    ganglion mother cell fate determination
G0:0015189
            2
                    L-lysine transmembrane transporter activity
            2
G0:2000116
                    regulation of cysteine-type endopeptidase activity
G0:0001729
                    ceramide kinase activity
G0:0032918
            2
                    spermidine acetylation
                    positive regulation of transforming growth factor beta2 production
G0:0032915
            2
                    negative regulation of transforming growth factor betal production
G0:0032911
                    negative regulation of transforming growth factor beta2 production
GO:0032912
            2
            2
G0:0008510
                    sodium:bicarbonate symporter activity
G0:0008511
                    sodium:potassium:chloride symporter activity
G0:0003272
                    endocardial cushion formation
            2
G0:0014854
            2
                    response to inactivity
                    interleukin-2 production
G0:0032623
            2
                    cholestenone 5-alpha-reductase activity
G0:0047751
            2
G0:0047750
            2
                    cholestenol delta-isomerase activity
G0:0060433
                    bronchus development
G0:0005953
                    {\tt CAAX-protein\ geranylgeranyltransferase\ complex}
            2
G0:0071482
                    cellular response to light stimulus
G0:0070538
            2
                    oleic acid binding
G0:0045661
            2
                    regulation of myoblast differentiation
                    antigen processing and presentation of peptide antigen via MHC class II
G0:0002495
            2
G0:0019981
                    interleukin-6 binding
G0:0030849
            2
                    autosome
GO:0016499
            2
                    orexin receptor activity
G0:0050820
                    positive regulation of coagulation
G0:0034701
            2
                    tripeptidase activity
                    negative regulation of oocyte maturation
G0:1900194
            2
                    regulation of protein tyrosine kinase activity
G0:0061097
GO:0006583
            2
                    melanin biosynthetic process from tyrosine
G0:0050794
            2
                    regulation of cellular process
G0:0046666
                    retinal cell programmed cell death
                    positive regulation of mitochondrial membrane potential
G0:0010918
            2
G0:0022890
            2
                    inorganic cation transmembrane transporter activity
G0:0002115
            2
                    store-operated calcium entry
            2
                    regulation of transmembrane transporter activity
G0:0022898
GO:0001941
            2
                    postsynaptic membrane organization
G0:0006636
                    unsaturated fatty acid biosynthetic process
G0:0005583
            2
                    fibrillar collagen trimer
            2
                    negative regulation of interleukin-12 secretion
G0:2001183
G0:1902263
                    apoptotic process involved in embryonic digit morphogenesis
G0:2001189
            2
                    negative regulation of T cell activation via T cell receptor contact with
antigen bound to MHC molecule on antigen presenting cell
                    positive regulation of polyamine transmembrane transport
G0:1902269 2
```

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G0:0004452 2
G0:0055014 2
                    isopentenyl-diphosphate delta-isomerase activity
                    atrial cardiac muscle cell development
                    positive regulation of biosynthetic process of antibacterial peptides
G0:0006965 2
active against Gram-positive bacteria
G0:0034124 2
                    regulation of MyD88-dependent toll-like receptor signaling pathway
G0:0021514 2
                    ventral spinal cord interneuron differentiation
G0:0060914 2
G0:0046879 2
                    heart formation
                    hormone secretion
G0:0010720 2
                    positive regulation of cell development
G0:0046877
            2
                    regulation of saliva secretion
G0:0002930
                    trabecular meshwork development
G0:2000637
            2
                    positive regulation of gene silencing by miRNA
G0:0003331
                    positive regulation of extracellular matrix constituent secretion
            2
G0:0072534
            2
                    perineuronal net
G0:0033257
            2
                    Bcl3/NF-kappaB2 complex
G0:0031251
            2
                    PAN complex
G0:0044209
            2
                    AMP salvage
G0:0015333
                    peptide:proton symporter activity
G0:0086003
            2
                    cardiac muscle cell contraction
G0:0033872
            2
                    [heparan sulfate]-glucosamine 3-sulfotransferase 3 activity
                    regulation of peptidyl-serine phosphorylation
G0:0033135
GO:0050867
            2
                    positive regulation of cell activation
G0:0042418
            2
                    epinephrine biosynthetic process
                    thiamine transport
G0:0015888
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G0:0015882
            2
                    L-ascorbic acid transport
G0:0048549
            2
                    positive regulation of pinocytosis
                    positive regulation of apoptotic process by virus
G0:0060139
            2
G0:0060133
            2
                    somatotropin secreting cell development
G0:0002322
            2
                    B cell proliferation involved in immune response
G0:0018342
            2
                    protein prenylation
                    protein-tyrosine sulfotransferase activity SREBP-SCAP-Insig complex
G0:0008476
            2
            2
G0:0032937
G0:0032422
                    purine-rich negative regulatory element binding
G0:0032429
                    regulation of phospholipase A2 activity
            2
            2
G0:0003218
                    cardiac left ventricle formation
G0:0019346
                    transsulfuration
                    negative regulation of RNA polymerase II transcriptional preinitiation
G0:0017055
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complex assembly
G0:0031652 2
                    positive regulation of heat generation
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                    negative regulation of toll-like receptor 3 signaling pathway
G0:0034140
G0:0034499
                    late endosome to Golgi transport
G0:0030862 2
                    positive regulation of polarized epithelial cell differentiation
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G0:0034727
                    piecemeal microautophagy of nucleus
G0:0006481
            2
                    C-terminal protein methylation
G0:0046602
            2
                    regulation of mitotic centrosome separation
G0:0030395
            2
                    lactose binding
G0:0002133
                    polycystin complex
G0:2001212
                    regulation of vasculogenesis
G0:0032493
            2
                    response to bacterial lipoprotein
            2
G0:0036396
                    MIS complex
G0:0097296
                    activation of cysteine-type endopeptidase activity involved in apoptotic
signaling pathway
G0:0004478
            2
                    methionine adenosyltransferase activity
G0:0004473
                    malate dehydrogenase (decarboxylating) (NADP+) activity
G0:0046885 2
                    follicle-stimulating hormone secretion
                    regulation of hormone biosynthetic process
                    phosphohistidine phosphatase activity
G0:0008969
G0:0018283
            2
                    iron incorporation into metallo-sulfur cluster
G0:0044210
            2
                    'de novo' CTP biosynthetic process
                    polynucleotide 5'-phosphatase activity
G0:0004651
                    polynucleotide 3' dephosphorylation
polynucleotide 5' dephosphorylation
G0:0098506
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G0:0098507
            2
                    negative regulation of histone H4 acetylation
G0:0090241
                    oxidoreductase activity, acting on peroxide as acceptor positive regulation of histone H4 acetylation
G0:0016684
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G0:0090240
            2
G0:0021937
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                    cerebellar Purkinje cell-granule cell precursor cell signaling involved in
regulation of granule cell precursor cell proliferation
G0:0044354 2
                    macropinosome
G0:0072054
                    renal outer medulla development
GO:0019087
            2
                    transformation of host cell by virus
                    Pyrin domain binding
G0:0032090
            2
G0:0046851
            2
                    negative regulation of bone remodeling
            2
G0:0070168
                    negative regulation of biomineral tissue development
                    positive regulation of adiponectin secretion
G0:0070165
            2
G0:0002481 2
                    antigen processing and presentation of exogenous protein antigen via MHC
```

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class Ib, TAP-dependent
G0:0007352
                    zygotic specification of dorsal/ventral axis
G0:0007356 2
                    thorax and anterior abdomen determination
G0:0007354 2
G0:0071344 2
                    zygotic determination of anterior/posterior axis, embryo
                    diphosphate metabolic process
G0:0001976 2
                    neurological system process involved in regulation of systemic arterial
blood pressure
G0:2000309 2
                    positive regulation of tumor necrosis factor (ligand) superfamily member
11 production
G0:2000653 2
G0:2000300 2
                    regulation of genetic imprinting
                    regulation of synaptic vesicle exocytosis
G0:0033274 2
                    response to vitamin B2
GO:0035607
                    fibroblast growth factor receptor signaling pathway involved in
orbitofrontal cortex development
G0:0061462 2
                    protein localization to lysosome
                    regulation of skeletal muscle adaptation
G0:0014733
G0:0046475
            2
                    glycerophospholipid catabolic process
G0:0045923 2
                    positive regulation of fatty acid metabolic process
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G0:0045920
                    negative regulation of exocytosis
G0:0043183
            2
                    vascular endothelial growth factor receptor 1 binding
                    alkaloid catabolic process
G0:0009822 2
G0:0009820
           2
                    alkaloid metabolic process
G0:0008355
            2
                    olfactory learning
                    iron ion import
G0:0097286 2
G0:0031729
            2
                    CCR4 chemokine receptor binding
G0:0031720
            2
                    haptoglobin binding
G0:0060488
           2
                    orthogonal dichotomous subdivision of terminal units involved in lung
branching morphogenesis
G0:0060489
           2
                    planar dichotomous subdivision of terminal units involved in lung
branching morphogenesis
GU:0090259 2
GO:0050610 2
                    regulation of retinal ganglion cell axon guidance
                    methylarsonate reductase activity
G0:0046294
                    formaldehyde catabolic process
G0:0005688
                    U6 snRNP
            2
G0:0005684
            2
                    U2-type spliceosomal complex
                    microtubule-based peroxisome localization
G0:0060152
G0:0005462
                    UDP-N-acetylglucosamine transmembrane transporter activity
            2
G0:0048298
            2
                    positive regulation of isotype switching to IgA isotypes
                    negative regulation of lipid biosynthetic process
G0:0051055
G0:0051053
                    negative regulation of DNA metabolic process
            2
G0:0051051
            2
                    negative regulation of transport
G0:0010133
                    proline catabolic process to glutamate
G0:0050262
            2
                    ribosylnicotinamide kinase activity
G0:2001023
            2
                    regulation of response to drug
                    negative regulation of endothelial cell chemotaxis
G0:2001027
           2
G0:0042942
                    D-serine transport
G0:0005135
                    interleukin-3 receptor binding
G0:0070080
                    titin Z domain binding
G0:0003231
           2
                    cardiac ventricle development
G0:0035985
                    senescence-associated heterochromatin focus
G0:0019413
                    acetate biosynthetic process
G0:0019417
            2
                    sulfur oxidation
G0:0016492
            2
                    G-protein coupled neurotensin receptor activity
G0:0032401
                    establishment of melanosome localization
GO:0001838
            2
                    embryonic epithelial tube formation
G0:0071930
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                    negative regulation of transcription involved in G1/S transition of
mitotic cell cycle
G0:0071931
                    positive regulation of transcription involved in G1/S transition of
           2
mitotic cell cycle
G0:0021678 2
                    third ventricle development
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G0:0015111
                    iodide transmembrane transporter activity
G0:0002540
            2
                    leukotriene production involved in inflammatory response
G0:0002543
                    activation of blood coagulation via clotting cascade
G0:0002542
            2
                    Factor XII activation
G0:0046592
            2
                    polyamine oxidase activity
G0:0071621
                    granulocyte chemotaxis
            2
G0:0071624
                    positive regulation of granulocyte chemotaxis
G0:0046629
            2
                    gamma-delta T cell activation
G0:0001162
                    RNA polymerase II intronic transcription regulatory region sequence-
specific DNA binding
G0:0046625 2
                    sphingolipid binding
G0:0070409 2
                    carbamoyl phosphate biosynthetic process
G0:0030112 2
                    G-protein coupled receptor heterodimeric complex
                    glycocalyx
G0:0035470 2
                    positive regulation of vascular wound healing
```

```
G0:0061144 2
G0:0004776 2
                    alveolar secondary septum development
                    succinate-CoA ligase (GDP-forming) activity
G0:0005093 2
                    Rab GDP-dissociation inhibitor activity
G0:0045029
            2
                    UDP-activated nucleotide receptor activity
G0:0045026
            2
                    plasma membrane fusion
G0:0045023
                    GO to G1 transition
G0:0004360
                    glutamine-fructose-6-phosphate transaminase (isomerizing) activity
G0:0004416
            2
                    hydroxyacylglutathione hydrolase activity
G0:0006678
                    glucosylceramide metabolic process
G0:0008940
                    nitrate reductase activity
            2
G0:0005324
            2
                    long-chain fatty acid transporter activity
G0:0042628
            2
                    mating plug formation
G0:0097136
                    Bcl-2 family protein complex
G0:0005724
                    nuclear telomeric heterochromatin
G0:0072676
                    lymphocyte migration
G0:0019062
            2
                    virion attachment to host cell
G0:0070535
            2
                    histone H2A K63-linked ubiquitination
G0:0046836
                    glycolipid transport
G0:0046831
            2
                    regulation of RNA export from nucleus
G0:0046833
            2
                    positive regulation of RNA export from nucleus
                    negative regulation of RNA export from nucleus
G0:0046832
G0:0046839
            2
                    phospholipid dephosphorylation
                    positive regulation of type B pancreatic cell apoptotic process negative regulation of motor neuron apoptotic process
G0:2000676
            2
G0:2000672
GO:2000670
            2
                    positive regulation of dendritic cell apoptotic process
G0:0006788
            2
                    heme oxidation
G0:0033883
                    pyridoxal phosphatase activity
G0:1901898
                    negative regulation of relaxation of cardiac muscle
            2
G0:0038109
            2
                    Kit signaling pathway
G0:0072178
            2
                    nephric duct morphogenesis
G0:0061448
            2
                    connective tissue development
            2
G0:0042020
                    interleukin-23 receptor activity
G0:0006313
                    transposition, DNA-mediated
GO:0043217
            2
                    mvelin maintenance
            2
G0:0046459
                    short-chain fatty acid metabolic process
G0:0045905
                    positive regulation of translational termination
G0:0052834
            2
                    inositol monophosphate phosphatase activity
                    negative regulation of exo-alpha-sialidase activity
G0:1903016
            2
                    D2 dopamine receptor binding
G0:0031749
G0:0052833
                    inositol monophosphate 4-phosphatase activity
            2
            2
G0:0010872
                    regulation of cholesterol esterification
                    regulation of cholesterol efflux
G0:0010874
G0:0006403
                    RNA localization
            2
G0:0060342
            2
                    photoreceptor inner segment membrane
                    regulation of exocyst localization
G0:0060178
                    four-way junction helicase activity
G0:0009378
            2
G0:0060171
                    stereocilium membrane
G0:0043146
                    spindle stabilization
           2
                    T cell cytokine production
G0:0002369
                    secretory IgA immunoglobulin complex
G0:0071751
G0:0071756
                    pentameric IgM immunoglobulin complex
G0:0071757
            2
                    hexameric IgM immunoglobulin complex
                    selenide, water dikinase activity
G0:0004756
            2
G0:0004370
                    glycerol kinase activity
G0:0004372
                    glycine hydroxymethyltransferase activity
            2
            2
G0:0014718
                    positive regulation of satellite cell activation involved in skeletal
muscle regeneration
                    cell proliferation in midbrain
G0:0033278
           2
G0:0046717
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                    acid secretion
G0:0072606 2
                    interleukin-8 secretion
G0:0000430 2
G0:0045684 2
                    regulation of transcription from RNA polymerase II promoter by glucose
                    positive regulation of epidermis development
G0:0070557
                    PCNA-p21 complex
G0:2000538
            2
                    positive regulation of B cell chemotaxis
G0:0034455
            2
                    t-UTP complex
G0:0021610
            2
                    facial nerve morphogenesis
                    positive regulation of cGMP metabolic process positive regulation of cAMP catabolic process
            2
G0:0030825
G0:0030822
            2
G0:0030821
                    negative regulation of cAMP catabolic process
GO:0010519
            2
                    negative regulation of phospholipase activity
                    regulation of intracellular protein transport
            2
G0:0033157
G0:0046022 2
                    positive regulation of transcription from RNA polymerase II promoter
during mitosis
G0:0051718 2
                    DNA (cytosine-5-)-methyltransferase activity, acting on CpG substrates
G0:0075732 2
                    viral penetration into host nucleus
```

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G0:0071600 2
G0:0060738 2
                    otic vesicle morphogenesis
                    epithelial-mesenchymal signaling involved in prostate gland development
                    mRNA cleavage involved in gene silencing by miRNA
G0:0035279 2
G0:1902560
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                    GMP reductase complex
G0:0001507
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                    acetylcholine catabolic process in synaptic cleft
                    activation of MAPK activity involved in innate immune response
G0:0035419
G0:0048312
                    intracellular distribution of mitochondria
G0:0048319
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                    axial mesoderm morphogenesis
G0:0004923
                    leukemia inhibitory factor receptor activity
G0:0031085
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                    BLOC-3 complex
G0:0004430
                    1-phosphatidylinositol 4-kinase activity
G0:0072384
                    organelle transport along microtubule
G0:0031223
                    auditory behavior
G0:0090042
                    tubulin deacetylation
G0:0021508
                    floor plate formation
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                    zygote asymmetric cell division
GO:0010070
G0:0060595
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                    fibroblast growth factor receptor signaling pathway involved in mammary
gland specification
G0:0008545 2
G0:0019046 2
                    JUN kinase kinase activity
                    release from viral latency
                    establishment of viral latency
G0:0019043 2
G0:0019049 2
G0:0060976 2
                    evasion or tolerance of host defenses by virus
                    coronary vasculature development
                    coronary vasculature morphogenesis
G0:0060977
G0:0032856
                    activation of Ras GTPase activity
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                    negative regulation of intracellular transport of viral material
G0:1901253
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G0:0021869
                    forebrain ventricular zone progenitor cell division
            2
                    single thymine insertion binding
G0:0032143
G0:0038162
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                    erythropoietin-mediated signaling pathway
G0:0047522
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                    15-oxoprostaglandin 13-oxidase activity
G0:0080019
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                    fatty-acyl-CoA reductase (alcohol-forming) activity
G0:0043686
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                    co-translational protein modification
G0:1990077
                    primosome complex
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GO:0003160
                    endocardium morphogenesis
            2
G0:0003169
                    coronary vein morphogenesis
G0:0034669
                    integrin alpha4-beta7 complex
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                    cytosine metabolic process
G0:0019858
G0:0006196
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                    AMP catabolic process
G0:0034665
                    integrin alpha1-beta1 complex
GO:0034667
            2
                    integrin alpha3-beta1 complex
                    lateral sprouting involved in lung morphogenesis
G0:0060490
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G0:0061312
                    BMP signaling pathway involved in heart development
G0:0061317
                    canonical Wnt signaling pathway involved in cardiac muscle cell fate
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commitment
G0:0031943
                    regulation of glucocorticoid metabolic process
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G0:0031766
                    type 3 galanin receptor binding
G0:0060370
                    susceptibility to T cell mediated cytotoxicity
G0:0015820
                    leucine transport
G0:0004152
                    dihydroorotate dehydrogenase activity
G0:0097421
                    liver regeneration
G0:0097427
                    microtubule bundle
G0:0045964
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                    positive regulation of dopamine metabolic process
                    negative regulation of dopamine metabolic process
G0:0045963
            2
G0:0006738
                    nicotinamide riboside catabolic process
G0:0005035
                    death receptor activity
            2
G0:0030540
            2
                    female genitalia development
G0:0060368
                    regulation of Fc receptor mediated stimulatory signaling pathway
G0:0015207
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                    adenine transmembrane transporter activity
G0:0008043
            2
                    intracellular ferritin complex
G0:0000064
                    L-ornithine transmembrane transporter activity
                    tRNA 3'-end processing
G0:0042780
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G0:0004771
                    sterol esterase activity
GO:0004772
                    sterol 0-acyltransferase activity
G0:0052548
                    regulation of endopeptidase activity
            2
G0:0008594
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                    photoreceptor cell morphogenesis
G0:0003904
            2
                    deoxyribodipyrimidine photo-lyase activity
            2
GO:0008260
                    3-oxoacid CoA-transferase activity
G0:0071633
            2
                    dihydroceramidase activity
G0:0005026
                    transforming growth factor beta receptor activity, type II
GO:0033314
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                    mitotic DNA replication checkpoint
                    negative regulation of T-helper 2 cell cytokine production positive regulation of T-helper 2 cell cytokine production
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G0:2000552
G0:2000553
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                    telomeric loop formation
G0:0021633
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                    optic nerve structural organization
G0:0021636 2
                    trigeminal nerve morphogenesis
```

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G0:0002507 2
G0:0035261 2
                    tolerance induction
                    external genitalia morphogenesis
G0:0015014 2
                    heparan sulfate proteoglycan biosynthetic process, polysaccharide chain
biosynthetic process
G0:0001855
                    complement component C4b binding
G0:0003140 2
                    determination of left/right asymmetry in lateral mesoderm
GU:0060297 2
GO:0007100 2
                    regulation of sarcomere organization
                    mitotic centrosome separation
G0:0006556 2
                    S-adenosylmethionine biosynthetic process
            2
G0:0050968
                    detection of chemical stimulus involved in sensory perception of pain
G0:0035250
                    UDP-galactosyltransferase activity
G0:0035256
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                    G-protein coupled glutamate receptor binding
G0:0006421
                    asparaginyl-tRNA aminoacylation
G0:0033173
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                    calcineurin-NFAT signaling cascade
G0:0030156
                    benzodiazepine receptor binding
                    adrenal chromaffin cell differentiation
G0:0061104
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G0:0042271
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                    susceptibility to natural killer cell mediated cytotoxicity
G0:0048332
                    mesoderm morphogenesis
G0:0004909
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                    interleukin-1, Type I, activating receptor activity
G0:0004906
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                    interferon-gamma receptor activity
G0:0004905
                    type I interferon receptor activity
                    regulation of lipid transport by negative regulation of transcription from
G0:0072368
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RNA polymerase II promoter
G0:0072369 2
                    regulation of lipid transport by positive regulation of transcription from
RNA polymerase II promoter
G0:2001274 2
                    negative regulation of glucose import in response to insulin stimulus
G0:0001640 2
                    adenylate cyclase inhibiting G-protein coupled glutamate receptor activity
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G0:0031208
                    POZ domain binding
G0:0090024
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                    negative regulation of neutrophil chemotaxis
G0:0008607
           2
                    phosphorylase kinase regulator activity
G0:0046898
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                    response to cycloheximide
G0:0044339
                    canonical Wnt signaling pathway involved in osteoblast differentiation
G0:0009059
                    macromolecule biosynthetic process
           2
GO:0051170
                    nuclear import
            2
G0:0044334
                    canonical Wnt signaling pathway involved in positive regulation of
epithelial to mesenchymal transition
                    canonical Wnt signaling pathway involved in neural crest cell
G0:0044335
            2
differentiation
G0:0044337 2
                    canonical Wnt signaling pathway involved in positive regulation of
apoptotic process
G0:0050567
                    glutaminyl-tRNA synthase (glutamine-hydrolyzing) activity
                    histone H3-T11 phosphorylation
G0:0035407 2
G0:0035402 2
G0:0004019 2
                    histone kinase activity (H3-T11 specific)
                    adenylosuccinate synthase activity
                    regulation of blood vessel remodeling
G0:0060312
            2
G0:0051284
                    positive regulation of sequestering of calcium ion
G0:0007290
                    spermatid nucleus elongation
G0:0007296
                    vitellogenesis
G0:0060319
                    primitive erythrocyte differentiation
G0:0032783
                    ELL-EAF complex
G0:0032785
                    negative regulation of DNA-templated transcription, elongation
G0:0032787
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                    monocarboxylic acid metabolic process
G0:0001991 2
                    regulation of systemic arterial blood pressure by circulatory renin-
angiotensin
G0:0043649 2
G0:0021849 2
                    dicarboxylic acid catabolic process
                    neuroblast division in subventricular zone
G0:0038145
                    macrophage colony-stimulating factor signaling pathway
G0:0055105
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                    ubiquitin-protein transferase inhibitor activity
G0:0070101
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                    positive regulation of chemokine-mediated signaling pathway
G0:0070104
                    negative regulation of interleukin-6-mediated signaling pathway
G0:0070106
                    interleukin-27-mediated signaling pathway
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G0:0030956
                    glutamyl-tRNA(Gln) amidotransferase complex
                    negative regulation of protein acetylation positive regulation of luteinizing hormone secretion
G0:1901984
G0:0033686
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G0:0035989
                    tendon development
G0:0034315
                    regulation of Arp2/3 complex-mediated actin nucleation
GO:0034316
            2
                    negative regulation of Arp2/3 complex-mediated actin nucleation
G0:0034648
            2
                    histone demethylase activity (H3-dimethyl-K4 specific)
G0:0003863 2
                    3-methyl-2-oxobutanoate dehydrogenase (2-methylpropanoyl-transferring)
activity
G0:0097228
                    sperm principal piece
G0:0060352
                    cell adhesion molecule production
GO:0015222
            2
                    serotonin transmembrane transporter activity
GO:0005999
            2
                    xylulose biosynthetic process
G0:0005997 2
                    xylulose metabolic process
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G0:0051904 2
G0:0009331 2
                   pigment granule transport
                    glycerol-3-phosphate dehydrogenase complex
G0:0007509 2
                   mesoderm migration involved in gastrulation
G0:0036273
           2
                    response to statin
G0:0042976
            2
                    activation of Janus kinase activity
                   inorganic diphosphatase activity
G0:0004427
           2
                   mannosyl-oligosaccharide 1,3-1,6-alpha-mannosidase activity
G0:0004572
G0:0052901
           2
                   spermine:oxygen oxidoreductase (spermidine-forming) activity
                   establishment of blood-nerve barrier
G0:0008065 2
G0:0048101 2
                   calcium- and calmodulin-regulated 3',5'-cyclic-GMP phosphodiesterase
activity
G0:0048105 2
                   establishment of body hair planar orientation
G0:0043813 2
G0:0014034 2
                   phosphatidylinositol-3,5-bisphosphate 5-phosphatase activity
                    neural crest cell fate commitment
                   ureter urothelium development
G0:0072190 2
G0:0035986
                    senescence-associated heterochromatin focus assembly
            2
G0:0003920
           2
                   GMP reductase activity
G0:0003290
                   atrial septum secundum morphogenesis
G0:0004791
            2
                   thioredoxin-disulfide reductase activity
G0:0070873
                    regulation of glycogen metabolic process
                   endonucleolytic cleavage to generate mature 5'-end of SSU-rRNA from (SSU-
G0:0000472
rRNA, 5.8S rRNA, LSU-rRNA)
G0:0070593
           2
                   dendrite self-avoidance
G0:0051349
                   positive regulation of lyase activity
                   negative regulation of transferase activity
           2
G0:0051348
G0:0015252
            2
                   hydrogen ion channel activity
G0:0071920
                   cleavage body
           2
G0:0002522
                   leukocyte migration involved in immune response
G0:0002520
            2
                    immune system development
G0:0015788
                   UDP-N-acetylglucosamine transport
           2
G0:0071460
                   cellular response to cell-matrix adhesion
           2
G0:0001872
           2
                    (1->3)-beta-D-glucan binding
G0:0070435
                   Shc-EGFR complex
G0:0034418
                   urate biosynthetic process
            2
                   positive regulation of T-helper 2 cell activation
G0:2000570
            2
G0:0045155
                   electron transporter, transferring electrons from CoQH2-cytochrome c
reductase complex and cytochrome c oxidase complex activity
                   canonical Wnt signaling pathway involved in metanephric kidney development
G0:0061290
G0:0032093
                    SAM domain binding
G0:0002082
           2
                    regulation of oxidative phosphorylation
G0:0017129
            2
                    triglyceride binding
G0:0002086
                    diaphragm contraction
G0:0017123
            2
                   Ral GTPase activator activity
G0:0072208
            2
                   metanephric smooth muscle tissue development
                    cell proliferation involved in metanephros development
G0:0072203
G0:0043067
            2
                    regulation of programmed cell death
G0:0045082
                    positive regulation of interleukin-10 biosynthetic process
G0:0004968
                   gonadotropin-releasing hormone receptor activity
G0:0004962
                   endothelin receptor activity
G0:0050992
                    dimethylallyl diphosphate biosynthetic process
G0:0050994
            2
                    regulation of lipid catabolic process
G0:0005329
            2
                    dopamine transmembrane transporter activity
G0:0031595
            2
                   nuclear proteasome complex
G0:0009295
                   nucleoid
G0:0002060
                   purine nucleobase binding
            2
                   N-acetylglucosaminyl-proteoglycan 4-beta-glucuronosyltransferase activity
G0:0050509
            2
G0:0010032
                   meiotic chromosome condensation
G0:0018205
                   peptidyl-lysine modification
            2
G0:0004031
            2
                   aldehyde oxidase activity
G0:0001607
                   neuromedin U receptor activity
                   negative regulation of mast cell cytokine production
G0:0032764
            2
G0:0032765
                    positive regulation of mast cell cytokine production
                   response to norepinephrine
G0:0071873
G0:0071871
            2
                    response to epinephrine
                   positive regulation of adrenergic receptor signaling pathway
G0:0071879
G0:0070698
           2
                    type I activin receptor binding
                   GMP binding
            2
GO:0019002
G0:0019008
            2
                   molybdopterin synthase complex
G0:0050756
                    fractalkine metabolic process
G0:0045509
            2
                   interleukin-27 receptor activity
            2
G0:0016062
                    adaptation of rhodopsin mediated signaling
G0:0000806
                    Y chromosome
G0:0000802
            2
                   transverse filament
                   negative regulation of uterine smooth muscle contraction
G0:0070473
            2
G0:0003127 2
                   detection of nodal flow
```

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G0:0034378 2
G0:0090086 2
                    chylomicron assembly
                    negative regulation of protein deubiquitination
G0:0034625
                    fatty acid elongation, monounsaturated fatty acid
G0:0034626
            2
                    fatty acid elongation, polyunsaturated fatty acid
G0:0005760
            2
                    gamma DNA polymerase complex
                    ADP transport
G0:0015866
G0:0050694
                    galactose 3-0-sulfotransferase activity
G0:0010817
            2
                    regulation of hormone levels
                    complement component C1 complex
G0:0005602
            2
           2
G0:0005608
                    laminin-3 complex
G0:0035578
                    azurophil granule lumen
G0:0002381 2
                    immunoglobulin production involved in immunoglobulin mediated immune
response
G0:0046527
                    glucosyltransferase activity
G0:0071748 2
                    monomeric IgA immunoglobulin complex
G0:0045728
            2
                    respiratory burst after phagocytosis
G0:1902306
            2
                    negative regulation of sodium ion transmembrane transport
G0:0004557
                    alpha-galactosidase activity
GO:0000022
            2
                    mitotic spindle elongation
G0:0004738
            2
                    pyruvate dehydrogenase activity
                    positive regulation of gliogenesis
G0:0014015
GO:0014010
            2
                    Schwann cell proliferation
G0:0004658
            2
                    propionyl-CoA carboxylase activity
G0:0004365
                    glyceraldehyde-3-phosphate dehydrogenase (NAD+) (phosphorylating) activity
G0:0045337
            2
                    farnesyl diphosphate biosynthetic process
G0:0070840
                    dynein complex binding
                    cysteine-tRNA ligase activity
G0:0004817
           2
G0:0004816
                    asparagine-tRNA ligase activity
G0:0004368
            2
                    glycerol-3-phosphate dehydrogenase activity
G0:0014908
                    myotube differentiation involved in skeletal muscle regeneration
G0:0019948
           2
                    SUMO activating enzyme activity
G0:0019767
                    IgE receptor activity
                    corticotrophin-releasing factor receptor activity
G0:0015056
G0:0071400
           2
                    cellular response to oleic acid
G0:0001812
            2
                    positive regulation of type I hypersensitivity
                    regulation of double-strand break repair
G0:2000779
G0:2000777
                    positive regulation of proteasomal ubiquitin-dependent protein catabolic
            2
process involved in cellular response to hypoxia
G0:0015747 2
                   urate transport
G0:0032596 2
G0:0034437 2
                    protein transport into membrane raft
                    glycoprotein transporter activity
G0:0035747 2
                    natural killer cell chemotaxis
G0:0046967 2
G0:0042180 2
                    cytosol to ER transport
                    cellular ketone metabolic process
                    long-chain-3-hydroxyacyl-CoA dehydrogenase activity
G0:0016509
G0:0016507
            2
                    mitochondrial fatty acid beta-oxidation multienzyme complex
G0:0046511
                    sphinganine biosynthetic process
G0:2001140
                    positive regulation of phospholipid transport
G0:0017109
                    glutamate-cysteine ligase complex myotube cell development
G0:0014904
G0:0006540
                    glutamate decarboxylation to succinate
G0:0006542
            2
                    glutamine biosynthetic process
GO:0001519
            2
                    peptide amidation
G0:0031010
                    ISWI-type complex
G0:0004947
            2
                    bradykinin receptor activity
GO:0004944
                    C5a anaphylatoxin receptor activity
G0:0004942
                    anaphylatoxin receptor activity
G0:0060091
            2
                    kinocilium
G0:0039003
            2
                    pronephric field specification
                    extracellular matrix constituent, lubricant activity
GO:0030197
G0:0031247
                    actin rod assembly
            2
                    negative regulation of inner ear receptor cell differentiation
G0:2000981
G0:0060049
                    regulation of protein glycosylation
G0:0005011
            2
                    macrophage colony-stimulating factor receptor activity
G0:0048378
            2
                    regulation of lateral mesodermal cell fate specification
G0:0005019
            2
                    platelet-derived growth factor beta-receptor activity
            2
                    late nucleophagy
G0:0044805
                    metanephric thick ascending limb development
G0:0072233
            2
G0:0004053
                    arginase activity
                    regulation of mitochondrial membrane permeability involved in programmed
G0:1902445
            2
necrotic cell death
G0:0001665 2
                    alpha-N-acetylgalactosaminide alpha-2,6-sialyltransferase activity
G0:0097025 2
G0:0043368 2
                    MPP7-DLG1-LIN7 complex
                    positive T cell selection
G0:0032290 2
                    peripheral nervous system myelin formation
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G0:0032298 2
G0:0070671 2
                    positive regulation of DNA-dependent DNA replication initiation
                    response to interleukin-12
G0:0019682 2
                    glyceraldehyde-3-phosphate metabolic process
G0:0070417 2
G0:0071233 2
                    cellular response to cold
                    cellular response to leucine
G0:1900016 2
                    negative regulation of cytokine production involved in inflammatory
response
G0:0060849 2
                    regulation of transcription involved in lymphatic endothelial cell fate
commitment
G0:0015842
                    synaptic vesicle amine transport
            2
G0:0015847
                    putrescine transport
G0:0046724 2
                    oxalic acid secretion
G0:0010810
           2
                    regulation of cell-substrate adhesion
G0:0004146
            2
                    dihydrofolate reductase activity
                    ATPase inhibitor activity
G0:0042030
           2
G0:1990226
            2
                    histone methyltransferase binding
G0:0030070
            2
                    insulin processing
G0:0035552
                    oxidative single-stranded DNA demethylation
                    oxidative single-stranded RNA demethylation
G0:0035553
            2
G0:0004060
            2
                    arylamine N-acetyltransferase activity
G0:0060466
                    activation of meiosis involved in egg activation
           2
G0:0060465
                    pharynx development
G0:0060460
            2
                    left lung morphogenesis
G0:0044240
                    multicellular organismal lipid catabolic process
           2
G0:0043205
           2
                    fibril
G0:0048499
            2
                    synaptic vesicle membrane organization
G0:0004531
                    deoxyribonuclease II activity
G0:0006020
           2
                    inositol metabolic process
G0:0006021
            2
                    inositol biosynthetic process
                    negative regulation of muscle organ development
G0:0048635
            2
G0:0060282
           2
                    positive regulation of oocyte development
G0:0008280
                    cohesin core heterodimer
G0:0008281
                    sulfonylurea receptor activity
           2
G0:0042891
                    antibiotic transport
G0:0042895
            2
                    antibiotic transporter activity
G0:0047196 2
                    long-chain-alcohol O-fatty-acyltransferase activity
G0:0002876 2
G0:0002879 2
G0:0002876
                    positive regulation of chronic inflammatory response to antigenic stimulus
                    positive regulation of acute inflammatory response to non-antigenic
stimulus
G0:0051303 2
G0:0032350 2
                    establishment of chromosome localization
                    regulation of hormone metabolic process
G0:0070085
                    glycosylation
           2
G0:0070084
                    protein initiator methionine removal
G0:0001834
            2
                    trophectodermal cell proliferation
                    mesenchymal cell differentiation involved in lung development
G0:0060915
G0:0034679
            2
                    integrin alpha9-beta1 complex
                    negative regulation of peptidyl-lysine acetylation
G0:2000757
G0:0038043
                    interleukin-5-mediated signaling pathway
G0:0052654
                    L-leucine transaminase activity
            2
G0:0052655
                    L-valine transaminase activity
G0:0052656
                    L-isoleucine transaminase activity
G0:0052650
            2
                    NADP-retinol dehydrogenase activity
G0:0016743
            2
                    carboxyl- or carbamoyltransferase activity
G0:0021692
                    cerebellar Purkinje cell layer morphogenesis
                    myristoyl-[acyl-carrier-protein] hydrolase activity palmitoyl-[acyl-carrier-protein] hydrolase activity
G0:0016295
            2
G0:0016296
            2
G0:0016297
                    acyl-[acyl-carrier-protein] hydrolase activity
G0:0021885
                    forebrain cell migration
            2
G0:0086100
            2
                    endothelin receptor signaling pathway
G0:0006560
                    proline metabolic process
GO:0072249
                    metanephric glomerular visceral epithelial cell development
            2
G0:0060073
                    micturition
G0:0046395
                    carboxylic acid catabolic process
G0:0097546
            2
                    ciliary base
G0:0035494
            2
                    SNARE complex disassembly
G0:0060615
            2
                    mammary gland bud formation
G0:0009258
            2
                    10-formyltetrahydrofolate catabolic process
G0:0009259
            2
                    ribonucleotide metabolic process
G0:0097091
                    synaptic vesicle clustering
G0:0048820
            2
                    hair follicle maturation
            2
                    reduction of food intake in response to dietary excess
G0:0002023
G0:0035947 2
                    regulation of gluconeogenesis by regulation of transcription from RNA
polymerase II promoter
G0:0035411 2
                    catenin import into nucleus
G0:0000171 2
                    ribonuclease MRP activity
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G0:0001641 2
G0:0046890 2
                    group II metabotropic glutamate receptor activity
                    regulation of lipid biosynthetic process
                    nucleoside triphosphate adenylate kinase activity
G0:0046899 2
G0:0034241
           2
                    positive regulation of macrophage fusion
G0:0032613
            2
                    interleukin-10 production
                    insecticide metabolic process
G0:0017143
G0:0003868
                    4-hydroxyphenylpyruvate dioxygenase activity
G0:0008615
                    pyridoxine biosynthetic process
                    3-oxo-5-alpha-steroid 4-dehydrogenase activity
G0:0003865
                    respiratory chain complex IV
G0:0045277
            2
G0:0004074
                    biliverdin reductase activity
G0:0070436 2
                    Grb2-EGFR complex
G0:0097411
                    hypoxia-inducible factor-lalpha signaling pathway
G0:2000253
                    positive regulation of feeding behavior
                    oxidative phosphorylation uncoupler activity
G0:0017077
G0:0070831
            2
                    basement membrane assembly
G0:0010430
            2
                    fatty acid omega-oxidation
G0:0002689
                    negative regulation of leukocyte chemotaxis
GO:0005850
            2
                    eukaryotic translation initiation factor 2 complex
G0:0009304
            2
                    tRNA transcription
G0:0046931
                    pore complex assembly
G0:0046709
           2
                    IDP catabolic process
                    negative regulation of axon regeneration
G0:0048681
            2
                    nephron tubule epithelial cell differentiation
G0:0072160
G0:0035026
           2
                    leading edge cell differentiation
GO:0030011
                    maintenance of cell polarity
                    8-oxo-7,8-dihydrodeoxyguanosine triphosphate pyrophosphatase activity
G0:0035539
GO:0060449
           2
                    bud elongation involved in lung branching
G0:0043366
            2
                    beta selection
G0:0004920
           2
                    interleukin-10 receptor activity
G0:0000354
            2
                    cis assembly of pre-catalytic spliceosome
                    tryptophan 5-monooxygenase activity
GO:0004510
G0:0004514
                    nicotinate-nucleotide diphosphorylase (carboxylating) activity
GO:0006001
            2
                    fructose catabolic process
            2
G0:0014053
                    negative regulation of gamma-aminobutyric acid secretion
G0:0014056
                    regulation of acetylcholine secretion, neurotransmission
G0:0014057
            2
                    positive regulation of acetylcholine secretion, neurotransmission
G0:0042701
            2
                    progesterone secretion
G0:0030576
                    Cajal body organization
G0:0031630
                    regulation of synaptic vesicle fusion to presynaptic membrane negative regulation of interleukin-8 secretion
            2
G0:2000483
            2
G0:0072166
                    posterior mesonephric tubule development
                    MDA-5 signaling pathway
G0:0039530
            2
                    negative regulation of RIG-I signaling pathway
G0:0039536
            2
                    negative regulation of MDA-5 signaling pathway
G0:0039534
           2
G0:0039535
                    regulation of RIG-I signaling pathway
                    dopamine neurotransmitter receptor activity, coupled via Gs
G0:0001588
G0:0001582 2
                    detection of chemical stimulus involved in sensory perception of sweet
taste
G0:0007518
                    myoblast fate determination
G0:0003989
                    acetyl-CoA carboxylase activity
           2
G0:0003986
                    acetyl-CoA hydrolase activity
G0:0003987
            2
                    acetate-CoA ligase activity
G0:0003980 2
                    UDP-glucose:glycoprotein glucosyltransferase activity
G0:0002588
                    positive regulation of antigen processing and presentation of peptide
           2
antigen via MHC class II
G0:0002587 2
                   negative regulation of antigen processing and presentation of peptide
antigen via MHC class II
G0:0038063 2
                   collagen-activated tyrosine kinase receptor signaling pathway
G0:0038062 2
                    protein tyrosine kinase collagen receptor activity
G0:0038065 2
G0:0038064 2
                    collagen-activated signaling pathway
                    collagen receptor activity
                    pancreatic PP cell fate commitment
G0:0003329 2
G0:0035854
           2
                    eosinophil fate commitment
G0:0042148
            2
                    strand invasion
G0:0043555
           2
                    regulation of translation in response to stress
                    regulation of heart rate by hormone
G0:0003064
            2
                    regulation of translational initiation in response to stress
G0:0043558
            2
G0:1901028 2
                    regulation of mitochondrial outer membrane permeabilization involved in
apoptotic signaling pathway
                    N-acetyl-beta-glucosaminyl-glycoprotein 4-beta-N-
G0:0033842 2
acetylgalactosaminyltransferase activity
                   positive regulation of nodal signaling pathway involved in determination
G0:1900224 2
of lateral mesoderm left/right asymmetry
                   regulation of beta-amyloid clearance
G0:1900221 2
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G0:1900229 2
                    negative regulation of single-species biofilm formation in or on host
organism
G0:0031022
                    nuclear migration along microfilament
G0:0060053
           2
                    neurofilament cytoskeleton
G0:0060050
            2
                    positive regulation of protein glycosylation
                    actin polymerization-dependent cell motility
G0:0070358
G0:0019551
                    glutamate catabolic process to 2-oxoglutarate
G0:0097035
            2
                    regulation of membrane lipid distribution
                    negative regulation of chromatin silencing at rDNA
G0:0061188
            2
G0:0046386
            2
                    deoxyribose phosphate catabolic process
G0:0031282
                    regulation of guanylate cyclase activity
                    negative regulation of transcription initiation from RNA polymerase II
G0:0060633 2
promoter
G0:0003858
                    3-hydroxybutyrate dehydrogenase activity
G0:0005055
                    laminin receptor activity
                    peroxisome matrix targeting signal-1 binding
G0:0005052
            2
G0:0048840
            2
                    otolith development
                    negative regulation of hydrogen peroxide metabolic process
G0:0010727
           2
GO:0060718
                    chorionic trophoblast cell differentiation
G0:0071409
            2
                    cellular response to cycloheximide
                    pancreatic A cell fate commitment
G0:0003326
           2
G0:0072305
                    negative regulation of mesenchymal cell apoptotic process involved in
metanephric nephron morphogenesis
G0:0002302 2
                    CD8-positive, alpha-beta T cell differentiation involved in immune
response
G0:0031691 2
                    alpha-1A adrenergic receptor binding
                    positive regulation of platelet-derived growth factor production
G0:0090362 2
G0:0060715 2
                    syncytiotrophoblast cell differentiation involved in labyrinthine layer
development
G0:0006837 2
                    serotonin transport
GU:0019531 2
GO:0019532 2
G0:0019531
                    oxalate transmembrane transporter activity
                    oxalate transport
                    oxoglutarate dehydrogenase complex
G0:0045252
                    negative regulation of metanephric nephron tubule epithelial cell
G0:0072308
            2
differentiation
G0:2000491 2
                    positive regulation of hepatic stellate cell activation
G0:0070188 2
G0:00222
                    translation release factor activity, codon specific
                    Stn1-Ten1 complex
G0:0032707
                    negative regulation of interleukin-23 production
G0:2000272
           2
                    negative regulation of receptor activity
G0:2000276
            2
                    negative regulation of oxidative phosphorylation uncoupler activity
G0:0090260
                    negative regulation of retinal ganglion cell axon guidance
                    3 iron, 4 sulfur cluster binding medium-chain-(S)-2-hydroxy-acid oxidase activity
G0:0051538
            2
G0:0052854
            2
G0:0016155
                    formyltetrahydrofolate dehydrogenase activity
G0:0052853
            2
                    long-chain-(S)-2-hydroxy-long-chain-acid oxidase activity
G0:0071763
                    nuclear membrane organization
G0:0003419
                    growth plate cartilage chondrocyte proliferation
G0:0044609
                    DBIRD complex
            2
GO:1901631
                    positive regulation of presynaptic membrane organization
G0:0005152
                    interleukin-1 receptor antagonist activity
GO:0035515
            2
                    oxidative RNA demethylase activity
                    positive regulation of branching involved in lung morphogenesis
GO:0061047
            2
G0:0042351
                    'de novo' GDP-L-fucose biosynthetic process
G0:0048769
            2
                    sarcomerogenesis
GO:0009446
            2
                    putrescine biosynthetic process
G0:0000084
                    mitotic S phase
                    mitotic G1 phase
G0:0000080
            2
G0:0046811
            2
                    histone deacetylase inhibitor activity
G0:0004797
                    thymidine kinase activity
G0:0004794
            2
                    L-threonine ammonia-lyase activity
G0:0031344
            2
                    regulation of cell projection organization
                    cell proliferation involved in kidney development
G0:0072111
G0:0045188
            2
                    regulation of circadian sleep/wake cycle, non-REM sleep
G0:0010256
            2
                    endomembrane system organization
G0:0021526
            2
                    medial motor column neuron differentiation
            2
GO:0008525
                    phosphatidylcholine transporter activity
G0:0004827
            2
                    proline-tRNA ligase activity
                    positive regulation of high-density lipoprotein particle clearance
G0:0010983
G0:0004137
            2
                    deoxycytidine kinase activity
            2
                    developmental programmed cell death
G0:0010623
G0:0001562
                    response to protozoan
G0:0072262
            2
                    metanephric glomerular mesangial cell proliferation involved in
metanephros development
G0:0071973 2
                    bacterial-type flagellum-dependent cell motility
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G0:0030029 2
G0:0003420 2
                    actin filament-based process
                    regulation of growth plate cartilage chondrocyte proliferation
G0:0038001 2
                    paracrine signaling
G0:0035879
            2
                    plasma membrane lactate transport
G0:0008422
            2
                    beta-glucosidase activity
                    dITP diphosphatase activity
GO:0035870
                    negative regulation of mitochondrial RNA catabolic process
GO:0000961
G0:0019255
                    glucose 1-phosphate metabolic process
G0:0071396
                    cellular response to lipid
G0:0043163
            2
                    cell envelope organization
G0:1900248
            2
                    negative regulation of cytoplasmic translational elongation
                    positive regulation of synaptic vesicle endocytosis
G0:1900244
G0:0035726
                    common myeloid progenitor cell proliferation
G0:0060032
                    notochord regression
G0:0034059
            2
                    response to anoxia
G0:0097059
                    CNTFR-CLCF1 complex
            2
G0:0097055
            2
                    agmatine biosynthetic process
                    positive regulation of peptide secretion
G0:0002793
GO:0097050
            2
                    type B pancreatic cell apoptotic process
G0:0097053
            2
                    L-kynurenine catabolic process
GO:0097052
                    L-kynurenine metabolic process
G0:0045053
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                    protein retention in Golgi apparatus
G0:0006478
            2
                    peptidyl-tyrosine sulfation
                    regulation of inclusion body assembly
G0:0090083
            2
GO:0035523
                    protein K29-linked deubiquitination
G0:0005072
            2
                    transforming growth factor beta receptor, cytoplasmic mediator activity
                    positive regulation of T cell costimulation
G0:2000525 2
G0:0048866 2
G0:0061051 2
                    stem cell fate specification
                    positive regulation of cell growth involved in cardiac muscle cell
development
G0:0042700 2
G0:2001303 2
                    luteinizing hormone signaling pathway
                    lipoxin A4 biosynthetic process
G0:0038163
                    thrombopoietin-mediated signaling pathway
           2
                    cranial nerve morphogenesis
GO:0021602
G0:0008160
            2
                    protein tyrosine phosphatase activator activity
G0:0043045
                    DNA methylation involved in embryo development
G0:0004307
            2
                    ethanolaminephosphotransferase activity
G0:0002046
            2
                    opsin binding
G0:0003826
                    alpha-ketoacid dehydrogenase activity
G0:0045236
            2
                    CXCR chemokine receptor binding
G0:2000473
            2
                    positive regulation of hematopoietic stem cell migration
                    regulation of opioid receptor signaling pathway
GO: 2000474
           2
G0:0045585
                    positive regulation of cytotoxic T cell differentiation
G0:0051081
            2
                    nuclear envelope disassembly
G0:0032181
                    dinucleotide repeat insertion binding
G0:0001798
            2
                    positive regulation of type IIa hypersensitivity
G0:0015114
                    phosphate ion transmembrane transporter activity
G0:0071568
                    UFM1 conjugating enzyme activity
                    regulation of ubiquitin-protein transferase activity
G0:0051438
G0:0046039
                    GTP metabolic process
G0:0035794
                    positive regulation of mitochondrial membrane permeability
G0:1901387
            2
                    positive regulation of voltage-gated calcium channel activity
G0:0071709
            2
                    membrane assembly
G0:1901383
                    negative regulation of chorionic trophoblast cell proliferation
                    glutathione dehydrogenase (ascorbate) activity
GO:0045174
            2
G0:0042335
            2
                    cuticle development
                    nuclear lumen
G0:0031981
G0:0043323
            2
                    positive regulation of natural killer cell degranulation
G0:0010899
            2
                    regulation of phosphatidylcholine catabolic process
                    glucosamine metabolic process
GO:0006041
G0:0006045
                    N-acetylglucosamine biosynthetic process
            2
G0:0045428
            2
                    regulation of nitric oxide biosynthetic process
                    glomerular parietal epithelial cell differentiation
G0:0072139
G0:0046778
            2
                    modification by virus of host mRNA processing
                    Holliday junction resolvase complex frizzled-2 binding
G0:0048476
            2
G0:0005110
G0:0048659
            2
                    smooth muscle cell proliferation
GO:0002215
                    defense response to nematode
G0:1902902
                    negative regulation of autophagic vacuole assembly
G0:0014040 2
G0:0010641 2
                    positive regulation of Schwann cell differentiation
                    positive regulation of platelet-derived growth factor receptor signaling
pathway
           2
G0:0001546
                    preantral ovarian follicle growth
G0:0001543
            2
                    ovarian follicle rupture
G0:0071954 2
                    chemokine (C-C motif) ligand 11 production
```

```
G0:0055081 2
G0:0038025 2
                    anion homeostasis
                    reelin receptor activity
G0:0032515 2
                    negative regulation of phosphoprotein phosphatase activity
G0:0009826
                    unidimensional cell growth
            2
                    cell-matrix adhesion involved in ameboidal cell migration
G0:0003366
            2
                    parathyroid hormone secretion
G0:0035898
G0:0019276
                    UDP-N-acetylgalactosamine metabolic process
G0:0042109
            2
                    lymphotoxin A biosynthetic process
                    interleukin-12 complex
G0:0043514 2
G0:0043516 2
                    regulation of DNA damage response, signal transduction by p53 class
mediator
G0:0043512 2
                    inhibin A complex
G0:0030997 2
G0:0021589 2
G0:0030997
                    regulation of centriole-centriole cohesion
                    cerebellum structural organization
G0:0021722
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                    superior olivary nucleus maturation
                    L-ascorbic acid biosynthetic process
G0:0019853
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G0:0097241
            2
                    hematopoietic stem cell migration to bone marrow
G0:0060014
                    granulosa cell differentiation
                    negative regulation of necrotic cell death
GO:0060547
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G0:0015966
                    diadenosine tetraphosphate biosynthetic process
                    radial glial cell differentiation
GO:0060019
G0:0009893
            2
                    positive regulation of metabolic process
G0:0009890
            2
                    negative regulation of biosynthetic process
                    sphingolipid catabolic process
G0:0030149
            2
G0:0031765
            2
                    type 2 galanin receptor binding
G0:0031762
            2
                    follicle-stimulating hormone receptor binding
G0:0021965
                    spinal cord ventral commissure morphogenesis
G0:0072125
            2
                    negative regulation of glomerular mesangial cell proliferation
G0:0006551
            2
                    leucine metabolic process
G0:0035305
                    negative regulation of dephosphorylation
G0:0008147
            2
                    structural constituent of bone
            2
G0:0048227
                    plasma membrane to endosome transport
G0:0042488
                    positive regulation of odontogenesis of dentin-containing tooth
GO:0000124
            2
                    SAGA complex
                    RNA polymerase I transcription factor complex
GO:0000120
G0:0004320
                    oleoyl-[acyl-carrier-protein] hydrolase activity
G0:0045213 2
G0:0070940 2
                    neurotransmitter receptor metabolic process
                    dephosphorylation of RNA polymerase II C-terminal domain
G0:0005642 2
                    annulate lamellae
G0:0032214 2
                    negative regulation of telomere maintenance via semi-conservative
replication
G0:0021913 2
                    regulation of transcription from RNA polymerase II promoter involved in
ventral spinal cord interneuron specification
G0:0051572 2
                    negative regulation of histone H3-K4 methylation
                    rRNA (adenine) methyltransferase activity
G0:0016433 2
G0:0003845 2
G0:0051410 2
                    {\tt 11-beta-hydroxysteroid\ dehydrogenase\ [NAD(P)]\ activity}
                    detoxification of nitrogen compound
G0:0007007
                    inner mitochondrial membrane organization
                    cellular response to triacyl bacterial lipopeptide cellular response to diacyl bacterial lipopeptide
G0:0071727
G0:0071726
G0:0035939
                    microsatellite binding
G0:0033031
            2
                    positive regulation of neutrophil apoptotic process
G0:0072224
            2
                    metanephric glomerulus development
G0:0034683
                    integrin alphav-beta3 complex
                    integrin alpha10-beta1 complex
            2
G0:0034680
G0:0016445
            2
                    somatic diversification of immunoglobulins
G0:0043308 2
                    eosinophil degranulation
            2
G0:0072563
                    endothelial microparticle
G0:0004914
            2
                    interleukin-5 receptor activity
G0:0004913
                    interleukin-4 receptor activity
GO:0050893
            2
                    sensory processing
G0:0004918
            2
                    interleukin-8 receptor activity
                    negative regulation of oxidative phosphorylation
G0:0090324
G0:0072156
            2
                    distal tubule morphogenesis
G0:2000820
            2
                    negative regulation of transcription from RNA polymerase II promoter
involved in smooth muscle cell differentiation
G0:0009405 2
G0:0004912 2
                    pathogenesis
                    interleukin-3 receptor activity
G0:0038194
                    thyroid-stimulating hormone signaling pathway
G0:0002232
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                    leukocyte chemotaxis involved in inflammatory response
            2
G0:0002238
                    response to molecule of fungal origin
G0:0036309
            2
                    protein localization to M-band
G0:0006990 2
                    positive regulation of transcription from RNA polymerase II promoter
involved in unfolded protein response
G0:0006991 2
                    response to sterol depletion
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G0:0008466 2
                    glycogenin glucosyltransferase activity
G0:0031543
                    peptidyl-proline dioxygenase activity
G0:0070009
                    serine-type aminopeptidase activity
G0:0042126
                    nitrate metabolic process
            2
G0:0072711
                    cellular response to hydroxyurea
                    negative regulation of cell volume
G0:0045794
G0:0045796
                    negative regulation of intestinal cholesterol absorption
                    lipid tube assembly
G0:0060988
            2
                    regulation of microvillus assembly
G0:0032534
G0:0034274
            2
                    Atg12-Atg5-Atg16 complex
G0:0010324
                    membrane invagination
G0:0002439
                    chronic inflammatory response to antigenic stimulus
G0:0019836
                    hemolysis by symbiont of host erythrocytes
G0:0030977
                    taurine binding
G0:0016309
                    1-phosphatidylinositol-5-phosphate 4-kinase activity
G0:0016035
                    zeta DNA polymerase complex
G0:0035802
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                    adrenal cortex formation
G0:0071065
                    alpha9-beta1 integrin-vascular cell adhesion molecule-1 complex
GO:0006435
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                    threonyl-tRNA aminoacylation
G0:0006434
                    seryl-tRNA aminoacylation
G0:0006436
                    tryptophanyl-tRNA aminoacylation
G0:0006433
                    prolyl-tRNA aminoacylation
G0:1900825 2
                    regulation of membrane depolarization during cardiac muscle cell action
potential
G0:1990168
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                    protein K33-linked deubiquitination
G0:0031952
                    regulation of protein autophosphorylation
                    developmental growth involved in morphogenesis
G0:0060560
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G0:0006086
            2
                    acetyl-CoA biosynthetic process from pyruvate
G0:0051799
            2
                    negative regulation of hair follicle development
                    medium-chain fatty acid biosynthetic process
G0:0051792
G0:0008410
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                    CoA-transferase activity
                    vesicle targeting, trans-Golgi to endosome
G0:0048203
G0:0045159
                    myosin II binding
GO:0031802
                    type 5 metabotropic glutamate receptor binding
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GO:0004345
                    glucose-6-phosphate dehydrogenase activity
G0:0006850
                    mitochondrial pyruvate transport
G0:0019249
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                    lactate biosynthetic process
G0:0071586
            2
                    CAAX-box protein processing
GO:0060700
                    regulation of ribonuclease activity
G0:0019244
            2
                    lactate biosynthetic process from pyruvate
                    slow-twitch skeletal muscle fiber contraction
G0:0031444
                    right ventricular cardiac muscle tissue morphogenesis
GO:0003221
G0:0033384
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G0:0007128
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                    meiotic prophase I
G0:0033615
                    mitochondrial proton-transporting ATP synthase complex assembly
G0:0019483
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                    beta-alanine biosynthetic process
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                    detection of glucose
G0:0090541
                    MIT domain binding
G0:0005879
                    axonemal microtubule
                    putrescine transmembrane transporter activity
G0:0015489
G0:0032943
                    mononuclear cell proliferation
G0:0021933
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                    radial glia guided migration of cerebellar granule cell
G0:0030892
            2
                    mitotic cohesin complex
G0:0030899
                    calcium-dependent ATPase activity
                    delta4-3-oxosteroid 5beta-reductase activity
GO:0047787
            2
                    3'-5' DNA helicase activity
G0:0043138
G0:0043490
                    malate-aspartate shuttle
GO:0000480
                    endonucleolytic cleavage in 5'-ETS of tricistronic rRNA transcript (SSU-
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rRNA, 5.8S rRNA, LSU-rRNA)
G0:0045634 2
                    regulation of melanocyte differentiation
                    pyrimidine-specific mismatch base pair DNA N-glycosylase activity
GO:0008263
            2
G0:0045199
                    maintenance of epithelial cell apical/basal polarity
                    Lys63-specific deubiquitinase activity
G0:0061578
G0:0008240
            2
                    tripeptidyl-peptidase activity
                    regulation of gene silencing mitochondrial light strand promoter sense binding
G0:0060968
            2
G0:0070363
            2
                    negative regulation of receptor binding negative regulation of lipoprotein metabolic process
G0:1900121
            2
G0:0050748
            2
G0:0010949
                    negative regulation of intestinal phytosterol absorption
GO:0060221
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                    retinal rod cell differentiation
G0:0072170
            2
                    metanephric tubule development
G0:0022843
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                    voltage-gated cation channel activity
G0:0022841
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                    potassium ion leak channel activity
G0:0097359
            2
                    UDP-glucosylation
G0:0004485 2
                    methylcrotonoyl-CoA carboxylase activity
```

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G0:0004488 2
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                    methylenetetrahydrofolate dehydrogenase (NADP+) activity
                    positive regulation of caveolin-mediated endocytosis
                    [acetyl-CoA carboxylase] kinase activity
G0:0050405
                    positive regulation of collateral sprouting in absence of injury
G0:0048697
            2
G0:0002635
            2
                    negative regulation of germinal center formation
                    Atg12 ligase activity
G0:0019777
G0:0030250
                    guanylate cyclase activator activity
G0:0051683
            2
                    establishment of Golgi localization
G0:0000715
                    nucleotide-excision repair, DNA damage recognition
G0:0004157
            2
                    dihydropyrimidinase activity
G0:0034227
            2
                    tRNA thio-modification
                    sphinganine kinase activity
G0:0008481
                    positive regulation of interleukin-3 biosynthetic process
G0:0045401
G0:0047223
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                    beta-1,3-galactosyl-0-glycosyl-glycoprotein beta-1,3-N-
acetylglucosaminyltransferase activity
G0:2000373
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                    positive regulation of DNA topoisomerase (ATP-hydrolyzing) activity
G0:0021546
                    rhombomere development
G0:0021893 2
                    cerebral cortex GABAergic interneuron fate commitment
G0:0033206 2
G0:0033754 2
                    meiotic cytokinesis
                    indoleamine 2,3-dioxygenase activity
G0:0021761 2
                    limbic system development
G0:0097199 2
                    cysteine-type endopeptidase activity involved in apoptotic signaling
pathway
G0:0030953 2
                    astral microtubule organization
G0:0002415
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                    immunoglobulin transcytosis in epithelial cells mediated by polymeric
immunoglobulin receptor
G0:0030950 2
                    establishment or maintenance of actin cytoskeleton polarity
G0:0071888 2
                    glial cell projection
                    macrophage apoptotic process
G0:0097195 2
                    pilomotor reflex
G0:0071886
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                    1-(4-iodo-2,5-dimethoxyphenyl)propan-2-amine binding
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                    sensory perception of touch
G0:0015920
                    lipopolysaccharide transport
G0:0016320
                    endoplasmic reticulum membrane fusion
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            2
G0:0035517
                    PR-DUB complex
G0:0034021
                    response to silicon dioxide
G0:0048597
            2
                    post-embryonic camera-type eye morphogenesis
G0:0090285
                    negative regulation of protein glycosylation in Golgi
            2
G0:0042508
                    tyrosine phosphorylation of Stat1 protein
                    alcohol dehydrogenase (NADP+) activity
GO:0008106
            2
G0:0005146
            2
                    leukemia inhibitory factor receptor binding
G0:0004366
                    glycerol-3-phosphate 0-acyltransferase activity
                    aspartate-tRNA ligase activity glutamate-tRNA ligase activity
G0:0004815
            2
G0:0004818
            2
                    positive regulation of mitochondrial electron transport, NADH to
G0:1902958 2
ubiquinone
G0:0070904
                    transepithelial L-ascorbic acid transport
G0:0090177
                    establishment of planar polarity involved in neural tube closure
G0:0039692
                    single stranded viral RNA replication via double stranded DNA intermediate
G0:0014806
                    smooth muscle hyperplasia
G0:0009223
                    pyrimidine deoxyribonucleotide catabolic process
G0:0071506
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                    cellular response to mycophenolic acid
G0:0071502
            2
                    cellular response to temperature stimulus
G0:0010385
                    double-stranded methylated DNA binding
G0:0036117
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                    hyaluranon cable
G0:0051466
                    positive regulation of corticotropin-releasing hormone secretion
G0:2000418
                    positive regulation of eosinophil migration
G0:0070278
            2
                    extracellular matrix constituent secretion
G0:0042306
            2
                    regulation of protein import into nucleus
G0:0052593
                    tryptamine:oxygen oxidoreductase (deaminating) activity
GO:0052596
                    phenethylamine:oxygen oxidoreductase (deaminating) activity
            2
G0:0052595
                    aliphatic-amine oxidase activity
G0:0052594
                    aminoacetone:oxygen oxidoreductase(deaminating) activity
G0:0046104
                    thymidine metabolic process
            2
G0:0016667
            2
                    oxidoreductase activity, acting on a sulfur group of donors
G0:0071267
            2
                    L-methionine salvage
            2
GO:0005049
                    nuclear export signal receptor activity
G0:0033692
            2
                    cellular polysaccharide biosynthetic process
G0:0016403
                    dimethylargininase activity
G0:0005046
            2
                    KDEL sequence binding
            2
G0:0070782
                    phosphatidylserine exposure on apoptotic cell surface
G0:0033007
                    negative regulation of mast cell activation involved in immune response
GO:1903019
            2
                    negative regulation of glycoprotein metabolic process
                    Scrib-APC-beta-catenin complex
G0:0034750
            2
G0:0097118 2
                    neuroligin clustering
```

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G0:0031697 2
G0:0031696 2
                    beta-1 adrenergic receptor binding
                    alpha-2C adrenergic receptor binding
G0:0031699 2
                    beta-3 adrenergic receptor binding
G0:0010966
           2
                    regulation of phosphate transport
G0:0009449
            2
                    gamma-aminobutyric acid biosynthetic process
G0:0036132
                    13-prostaglandin reductase activity
GO:0006601
                    creatine biosynthetic process
G0:0009440
                    cyanate catabolic process
G0:0030619 2
                    U1 snRNA binding
                    myeloid dendritic cell activation involved in immune response
G0:0002277
            2
G0:0030617 2
                    transforming growth factor beta receptor, inhibitory cytoplasmic mediator
activity
G0:0009330
                    DNA topoisomerase complex (ATP-hydrolyzing)
G0:2001150
                    positive regulation of dipeptide transmembrane transport
G0:0003365
                    establishment of cell polarity involved in ameboidal cell migration
G0:0055026
            2
                    negative regulation of cardiac muscle tissue development
            2
G0:0004609
                    phosphatidylserine decarboxylase activity
G0:0033364
                    mast cell secretory granule organization
                    NEDD8-specific protease activity
G0:0019784
            2
G0:0019781
            2
                    NEDD8 activating enzyme activity
                    cellular response to camptothecin
G0:0072757
G0:0021568
                    rhombomere 2 development
            2
G0:0032571
            2
                    response to vitamin K
G0:0097252
                    oligodendrocyte apoptotic process
G0:0033549
            2
                    MAP kinase phosphatase activity
G0:0033227
                    dsRNA transport
                    principal sensory nucleus of trigeminal nerve development
G0:0021740
G0:0005943
            2
                    1-phosphatidylinositol-4-phosphate 3-kinase, class IA complex
G0:0021747
            2
                    cochlear nucleus development
                    cellular response to cocaine
G0:0071314
                    B-1 B cell homeostasis
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                    calcium-dependent cell-matrix adhesion
G0:0016340
                    positive regulation of T cell mediated immunity
G0:0002711
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G0:0051648
                    vesicle localization
                    positive regulation of natural killer cell mediated immunity
G0:0002717
                    mitochondrion localization
G0:0051646
           2
G0:0051647
                    nucleus localization
G0:0042496
           2
                    detection of diacyl bacterial lipopeptide
                    neuropilin binding
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G0:0038190
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                    VEGF-activated neuropilin signaling pathway
G0:0008523
            2
                    sodium-dependent multivitamin transmembrane transporter activity
                    protein localization to nuclear pore
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                    squamous basal epithelial stem cell differentiation involved in prostate
G0:0060529
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gland acinus development
G0:0035368 2
                    selenocysteine insertion sequence binding
G0:0035363 2
                    histone locus body
G0:0003402
                    planar cell polarity pathway involved in axis elongation
G0:0071801
                    regulation of podosome assembly
G0:0006168
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                    adenine salvage
                    positive regulation of phospholipid efflux
G0:1902995
G0:0010845
                    positive regulation of reciprocal meiotic recombination
G0:0048710
            2
                    regulation of astrocyte differentiation
GO:0061101
            2
                    neuroendocrine cell differentiation
G0:0005128
                    erythropoietin receptor binding
G0:0004828
           2
                    serine-tRNA ligase activity
GO:0004831
                    tyrosine-tRNA ligase activity
G0:0045103
                    intermediate filament-based process
G0:0072033
            2
                    renal vesicle formation
G0:0008269
            2
                    JAK pathway signal transduction adaptor activity
G0:0042270
                    protection from natural killer cell mediated cytotoxicity
                    N-acylmannosamine kinase activity
G0:0009384
            2
                    receptor-mediated endocytosis of low-density lipoprotein particle involved
G0:0090118
            2
in cholesterol transport
G0:0005981 2
                    regulation of glycogen catabolic process
G0:0031780
                    corticotropin hormone receptor binding
G0:0051917
                    regulation of fibrinolysis
           2
                   regulation of eIF2 alpha phosphorylation by heme mechanically-gated ion channel activity
G0:0010999
G0:0008381
            2
G0:0043006
                    activation of phospholipase A2 activity by calcium-mediated signaling
G0:0070781
            2
                    response to biotin
            2
G0:0015198
                    oligopeptide transporter activity
G0:0010994
                    free ubiquitin chain polymerization
G0:0015197
            2
                    peptide transporter activity
                    mesodermal cell fate commitment
GO:0001710
            2
G0:0035268 2
                    protein mannosylation
```

```
G0:0008311 2
G0:0032902 2
                    double-stranded DNA 3'-5' exodeoxyribonuclease activity
                    nerve growth factor production
G0:0031783 2
                    type 5 melanocortin receptor binding
                    L-ascorbate:sodium symporter activity
G0:0008520
            2
G0:2000297
            2
                    negative regulation of synapse maturation
                    transferase activity, transferring acyl groups, acyl groups converted into
G0:0046912 2
alkyl on transfer
G0:0015732 2
                    prostaglandin transport
G0:0032633
                    interleukin-4 production
G0:0070253 2
G0:0070253 2
                    negative regulation of mucus secretion
                    somatostatin secretion
                    detection of oxidative stress
G0:0070994 1
G0:0047127
                    thiomorpholine-carboxylate dehydrogenase activity
G0:0030852
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                    regulation of granulocyte differentiation
G0:0031104
            1
                    dendrite regeneration
                    microtubule polymerization or depolymerization
G0:0031109
            1
1
G0:0034773
                    histone H4-K20 trimethylation
G0:1900168 1
                    positive regulation of glial cell line-derived neurotrophic factor
secretion
G0:1900163
                    positive regulation of phospholipid scramblase activity
                    all-trans-retinol 13,14-reductase activity
G0:0051786 1
G0:0090340
            1
                    positive regulation of secretion of lysosomal enzymes
G0:0090341
            1
                    negative regulation of secretion of lysosomal enzymes
                    ornithine biosynthetic process
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GO:0006593
            1
                    ornithine catabolic process
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            1
                    negative regulation of UDP-glucose catabolic process
                    dopamine receptor binding
G0:0050780
GO:0010900
                    negative regulation of phosphatidylcholine catabolic process
            1
G0:0050783
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                    cocaine metabolic process
                    positive regulation of androgen secretion
G0:2000836
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G0:0007624
            1
                    ultradian rhythm
G0:0036458
            1
                    hepatocyte growth factor binding
G0:0030677
                    ribonuclease P complex
G0:1902212
                    negative regulation of prolactin signaling pathway negative regulation of interleukin-4-mediated signaling pathway
            1
G0:1902215
            1
G0:0048389
                    intermediate mesoderm development
G0:0045075
                    regulation of interleukin-12 biosynthetic process
            1
G0:0004446
            1
                    inositol-hexakisphosphate phosphatase activity
G0:0004990
                    oxytocin receptor activity
GO:0008798
                    beta-aspartyl-peptidase activity
            1
G0:0048034
            1
                    heme O biosynthetic process
G0:0018106
                    peptidyl-histidine phosphorylation
                    negative regulation of ureter smooth muscle cell differentiation
G0:2000062
            1
           1
G0:0031204
                    posttranslational protein targeting to membrane, translocation
G0:0008794
                    arsenate reductase (glutaredoxin) activity
G0:0070069
            1
                    cytochrome complex
                    positive regulation of blood microparticle formation
G0:2000334
            1
G0:2000627
                    positive regulation of miRNA catabolic process
G0:2000620
                    positive regulation of histone H4-K16 acetylation
            1
                    neural fold elevation formation
G0:0021502
G0:0021503
                    neural fold bending
G0:0021501
                    prechordal plate formation
            1
G0:0052817
            1
                    very long chain acyl-CoA hydrolase activity
G0:0010752
                    regulation of cGMP-mediated signaling
                    negative regulation of cGMP-mediated signaling
G0:0010754
            1
G0:0010758
            1
                    regulation of macrophage chemotaxis
G0:0002904
                    positive regulation of B cell apoptotic process
                    hair follicle cell proliferation regulation of hair follicle cell proliferation
G0:0071335
            1
G0:0071336
            1
                    leukocyte mediated cytotoxicity
G0:0001909
GO: 1901796
                    regulation of signal transduction by p53 class mediator
            1
G0:0051660
            1
                    establishment of centrosome localization
                    maintenance of centrosome location
G0:0051661
G0:0051665
                    membrane raft localization
            1
            1
G0:0004801
                    sedoheptulose-7-phosphate:D-glyceraldehyde-3-phosphate
glyceronetransferase activity
G0:1900169 1
G0:1990108 1
                    regulation of glucocorticoid mediated signaling pathway
                    protein linear deubiquitination
G0:0017018
                    myosin phosphatase activity
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                    phosphatidylinositol phosphate phosphatase activity
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                    Fas-activated serine/threonine kinase activity
G0:0033867
            1
G0:0006106
                    fumarate metabolic process
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                    negative regulation of N-terminal protein palmitoylation
            1
           1
G0:0044330
                    canonical Wnt signaling pathway involved in positive regulation of wound
healing
```

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G0:0031710 1
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                    neuromedin B receptor binding
                    xanthine oxidase activity
G0:0004856 1
                    xylulokinase activity
G0:0004853
                    uroporphyrinogen decarboxylase activity
            1
                    regulation of cellular response to growth factor stimulus
G0:0090287
            1
                    positive regulation of melanosome transport
G0:1902910
G0:0031812
                    P2Y1 nucleotide receptor binding
G0:0050647
            1
                    5-hydroxy-6E,8Z,11Z,14Z-icosatetraenoic acid binding
                    5-oxo-6E,8Z,11Z,14Z-icosatetraenoic acid binding
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GO:0008118
                    N-acetyllactosaminide alpha-2,3-sialyltransferase activity
            1
G0:0000965
                    mitochondrial RNA 3'-end processing
                    dol-P-Man:Man(8)GlcNAc(2)-PP-Dol alpha-1,2-mannosyltransferase activity
G0:0052918
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G0:0098703
                    calcium ion import across plasma membrane
G0:0090138
            1
                    regulation of actin cytoskeleton organization by cell-cell adhesion
G0:0060101
                    negative regulation of phagocytosis, engulfment
G0:0090134
                    cell migration involved in mesendoderm migration
G0:0090131
            1
                    mesenchyme migration
G0:0005456
                    CMP-N-acetylneuraminate transmembrane transporter activity
GO:0002335
                    mature B cell differentiation
            1
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            1
                    alkenylglycerophosphoethanolamine hydrolase activity
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                    uridylate kinase activity
GO:0010106
                    cellular response to iron ion starvation
            1
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            1
                    lipoate biosynthetic process
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                    protein myristoylation
G0:0052726
            1
                    inositol-1,3,4-trisphosphate 5-kinase activity
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                    serine-pyruvate transaminase activity
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G0:0003881
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                    stearoyl-CoA 9-desaturase activity
                    positive regulation of leukocyte apoptotic process
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G0:0005367
            1
                    myo-inositol:sodium symporter activity
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            1
                    putrescine acetylation
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                    regulation of superoxide anion generation
GO:0032383
                    regulation of intracellular cholesterol transport
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G0:0008507
            1
                    sodium:iodide symporter activity
G0:0016999
                    antibiotic metabolic process
G0:0016997
                    alpha-sialidase activity
            1
G0:0045381
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                    regulation of interleukin-18 biosynthetic process
                    regulation of timing of subpallium neuron differentiation
G0:0060165
                    regulation of interleukin-12 production
GO:0032655
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G0:0047726
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                    iron-cytochrome-c reductase activity
G0:0043795
                    glyceraldehyde oxidoreductase activity
G0:0043438
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                    acetoacetic acid metabolic process
G0:0016917
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                    GABA receptor activity
                    regulation of monocyte differentiation
G0:0045655
                    high-density lipoprotein particle receptor activity
G0:0070506
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G0:0071103
                    DNA conformation change
G0:0071105
                    response to interleukin-11
G0:0043380
                    regulation of memory T cell differentiation regulation of barbed-end actin filament capping
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G0:2000812
G0:0043383
                    negative T cell selection
G0:0033387
                    putrescine biosynthetic process from ornithine
            1
G0:0033386
            1
                    geranylgeranyl diphosphate biosynthetic process
G0:0033388
                    putrescine biosynthetic process from arginine
G0:1900365
                    positive regulation of mRNA polyadenylation
            1
                    regulation of acyl-CoA biosynthetic process
G0:0050812
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G0:1900180
                    regulation of protein localization to nucleus
G0:0097152
                    mesenchymal cell apoptotic process
            1
G0:0097158
            1
                    pre-mRNA intronic pyrimidine-rich binding
                    nociceptin receptor activity
G0:0001626
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GO:0061085
                    regulation of histone H3-K27 methylation
            1
G0:0061081
            1
                    positive regulation of myeloid leukocyte cytokine production involved in
immune response
G0:0020005
                    symbiont-containing vacuole membrane
            1
G0:0020003
            1
                    symbiont-containing vacuole
G0:0010920
                    negative regulation of inositol phosphate biosynthetic process
                    regulation of phosphatase activity
G0:0010921
            1
                    positive regulation of inositol-polyphosphate 5-phosphatase activity
G0:0010925
            1
G0:0018192
                    enzyme active site formation via L-cysteine persulfide
G0:0030387
                    fructosamine-3-kinase activity
            1
                    interleukin-17E receptor binding
G0:0030380
            1
GO:0002077
                    acrosome matrix dispersal
                    fructosamine metabolic process
G0:0030389
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G0:0006643
            1
                    membrane lipid metabolic process
G0:0006649 1
                    phospholipid transfer to membrane
```

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G0:0030128 1
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                    clathrin coat of endocytic vesicle
                    T cell differentiation involved in immune response
G0:0005591 1
                    collagen type VIII trimer
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G0:0005595
                    collagen type XII trimer
G0:0072283
            1
                    metanephric renal vesicle morphogenesis
                    positive regulation of dopamine biosynthetic process
G0:1903181
                    substance P receptor binding
G0:0031835
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1
                    positive regulation of T cell activation via T cell receptor contact with
G0:2001190
antigen bound to MHC molecule on antigen presenting cell
G0:2001193 1
                    positive regulation of gamma-delta T cell activation involved in immune
response
G0:0050651 1
                    dermatan sulfate proteoglycan biosynthetic process
                    positive regulation of cardiac vascular smooth muscle cell differentiation negative regulation of transcription by glucose
G0:2000724 1
G0:0045014 1
                    3-hydroxyoctanoyl-[acyl-carrier-protein] dehydratase activity
G0:0047451
G0:0004462
                    lactoylglutathione lyase activity
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G0:0004463
                    leukotriene-A4 hydrolase activity
G0:0018293
                    protein-FAD linkage
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G0:0048050
                    post-embryonic eye morphogenesis
            1
                    phosphatidyl-N-methylethanolamine N-methyltransferase activity
GO:0000773
            1
G0:0048058
                    compound eye corneal lens development
G0:0004648
                    O-phospho-L-serine:2-oxoglutarate aminotransferase activity
            1
G0:0004641
            1
                    phosphoribosylformylglycinamidine cyclo-ligase activity
G0:0004642
                    phosphoribosylformylglycinamidine synthase activity
            1
                    phosphoribosylaminoimidaz ole carboxamide\ formyltransferase\ activity
G0:0004643
            1
G0:0004644
            1
                    phosphoribosylglycinamide formyltransferase activity
                    stress-induced mitochondrial fusion
G0:1990046
                    cardiac muscle tissue growth involved in heart morphogenesis
G0:0003245
G0:0080164
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                    regulation of nitric oxide metabolic process
                    interneuron migration from the subpallium to the cortex
G0:0021830
            1
G0:0021528
                    commissural neuron differentiation in spinal cord
GO:0060901
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                    regulation of hair cycle by canonical Wnt signaling pathway
GO:0060900
                    embryonic camera-type eye formation
G0:0060904
                    regulation of protein folding in endoplasmic reticulum
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G0:0010734
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                    negative regulation of protein glutathionylation
G0:0001692
                    histamine metabolic process
                    branchiomotor neuron axon guidance
G0:0021785
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G0:0051350
                    negative regulation of lyase activity
G0:2000066
                    positive regulation of cortisol biosynthetic process
                    pronuclear fusion
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G0:0007343
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                    egg activation
                    cellular response to type I interferon
G0:0071357
G0:0071351
                    cellular response to interleukin-18
G0:2000312
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                    regulation of kainate selective glutamate receptor activity
                    negative regulation of receptor catabolic process
G0:2000645
G0:2000642
                    negative regulation of early endosome to late endosome transport
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G0:0052740
                    1-acyl-2-lysophosphatidylserine acylhydrolase activity
G0:0052746
                    inositol phosphorylation
G0:0052745
                    inositol phosphate phosphatase activity
                    1-phosphatidylinositol-3-phosphate 5-kinase activity
G0:0000285
G0:0035639
                    purine ribonucleoside triphosphate binding
G0:2000659
                    regulation of interleukin-1-mediated signaling pathway
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                    regulation of skeletal muscle contraction by calcium ion signaling
G0:0014722
G0:0006343
                    establishment of chromatin silencing
G0:0046466
                    membrane lipid catabolic process
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G0:0046464
            1
                    acylglycerol catabolic process
G0:0045340
                    mercury ion binding
G0:2000549
                    positive regulation of dendritic cell dendrite assembly
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                    cell-cell signaling involved in cardiac conduction
G0:0086019
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G0:0004997
                    thyrotropin-releasing hormone receptor activity
G0:0043177
                    organic acid binding
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G0:0043176
            1
                    amine binding
G0:0043175
                    RNA polymerase core enzyme binding
G0:0002790
                    peptide secretion
            1
                    negative regulation of peptide secretion
G0:0002792
            1
G0:1903044
                    protein localization to membrane raft
                    complement component C3b receptor activity
G0:0004877
            1
                    complement receptor activity
G0:0004875
            1
G0:0004874
                    aryl hydrocarbon receptor activity
G0:0072077
                    renal vesicle morphogenesis
            1
G0:0004878
            1
                    complement component C5a receptor activity
G0:0050666
                    regulation of homocysteine metabolic process
                    oxidoreductase activity, acting on NAD(P)H, oxygen as acceptor positive regulation of homocysteine metabolic process
G0:0050664
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G0:0050668
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G0:0097454 1
                    Schwann cell microvillus
```

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G0:0060127 1
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                    suramin binding
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                    peptidyl-asparagine hydroxylation
G0:0002314
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                    follicular B cell differentiation
G0:0002316 1
                    pyruvate secondary active transmembrane transporter activity
G0:0005477
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G0:0005471
                    ATP:ADP antiporter activity
                    B cell activation involved in immune response
G0:0002312
G0:0002313
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                    mature B cell differentiation involved in immune response
G0:0051042
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                    negative regulation of calcium-independent cell-cell adhesion
                    phenylacetate catabolic process
G0:0010124
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G0:0050277
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                    sedoheptulokinase activity
                    regulation of double-strand break repair via nonhomologous end joining
G0:2001032
G0:2001033 1
                    negative regulation of double-strand break repair via nonhomologous end
joining
G0:2001031
                    positive regulation of cellular glucuronidation
G0:0010171
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                    body morphogenesis
                    positive regulation of heart induction by negative regulation of canonical
G0:0090082
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Wnt signaling pathway
G0:0018352 1
                    protein-pyridoxal-5-phosphate linkage
                    protein esterification
GO:0018350
G0:0044252
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G0:0015065
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                    uridine nucleotide receptor activity
G0:0071987
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                    WD40-repeat domain binding
G0:0015791
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                    polyol transport
G0:0036179
                    osteoclast maturation
                    neural plate development
G0:0001840
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G0:2000120
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                    positive regulation of sodium-dependent phosphate transport
G0:0015798
            1
                    myo-inositol transport
G0:0015068
            1
                    glycine amidinotransferase activity
G0:0032415
            1
                    regulation of sodium:proton antiporter activity
G0:0032412
                    regulation of ion transmembrane transporter activity
G0:0046015
                    regulation of transcription by glucose
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G0:2000233
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                    negative regulation of rRNA processing
G0:0016260
                    selenocysteine biosynthetic process
G0:0016603
            1
                    glutaminyl-peptide cyclotransferase activity
G0:0019402
            1
                    galactitol metabolic process
G0:0042827
                    platelet dense granule
G0:0047545
                    2-hydroxyglutarate dehydrogenase activity
            1
G0:0047704
            1
                    bile-salt sulfotransferase activity
G0:0047708
                    biotinidase activity
                    osteoclast fusion
G0:0072675
            1
G0:0043413
            1
                    macromolecule glycosylation
G0:0043418
            1
                    homocysteine catabolic process
                    negative regulation of vitamin D receptor signaling pathway
G0:0070563
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G0:0071164
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                    RNA trimethylguanosine synthase activity
G0:0071167
                    ribonucleoprotein complex import into nucleus
                    toll-like receptor 8 signaling pathway box H/ACA RNP complex
G0:0034158
G0:0072588
G0:0034150
                    toll-like receptor 6 signaling pathway
G0:2000870
                    regulation of progesterone secretion
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G0:0021642
            1
                    trochlear nerve formation
G0:0032674
                    regulation of interleukin-5 production
                    dGTP metabolic process
G0:0046070
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G0:0021768
            1
                    nucleus accumbens development
G0:0046079
                    dUMP catabolic process
G0:0046078
                    dUMP metabolic process
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G0:0015067
            1
                    amidinotransferase activity
G0:0002128
                    tRNA nucleoside ribose methylation
            1
GO:0003138
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                    primary heart field specification
                    miRNA loading onto RISC involved in gene silencing by miRNA
G0:0035280
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G0:0046618
                    drug export
G0:2001200
                    positive regulation of dendritic cell differentiation
            1
G0:2001204
            1
                    regulation of osteoclast development
G0:2001206
                    positive regulation of osteoclast development
                    HLA-A specific activating MHC class I receptor activity HLA-A specific inhibitory MHC class I receptor activity
GO:0030108
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GO:0030107
            1
G0:1901509
                    regulation of endothelial tube morphogenesis
G0:2000118
                    regulation of sodium-dependent phosphate transport
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G0:2000119
            1
                    negative regulation of sodium-dependent phosphate transport
G0:0004788
                    thiamine diphosphokinase activity
G0:0045030
                    UTP-activated nucleotide receptor activity
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G0:0045032
            1
                    ADP-activated nucleotide receptor activity
G0:0004408 1
                    holocytochrome-c synthase activity
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                    sphinganine-1-phosphate metabolic process
G0:0006669 1
                    sphinganine-1-phosphate biosynthetic process
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G0:1902078
                    positive regulation of lateral motor column neuron migration
G0:1902073
            1
                    positive regulation of hypoxia-inducible factor-lalpha signaling pathway
G0:0006666
                    3-keto-sphinganine metabolic process
G0:1902074
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1
                    response to salt
G0:0048074
                    negative regulation of eye pigmentation
G0:0005314
                    high-affinity glutamate transmembrane transporter activity
GO:0000797
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                    condensin core heterodimer
G0:0000799
                    nuclear condensin complex
G0:0031507
                    heterochromatin assembly
G0:0031508
                    centromeric heterochromatin assembly
G0:0090075
                    relaxation of muscle
                    protein localization to tight junction
G0:1902396 1
                    positive regulation of intrinsic apoptotic signaling pathway by p53 class
G0:1902255 1
mediator
G0:1902251 1
                    negative regulation of erythrocyte apoptotic process
G0:0010640 1
G0:0060427 1
                    regulation of platelet-derived growth factor receptor signaling pathway
                    lung connective tissue development
                    cofactor metabolic process
G0:0051186 1
G0:0051181
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                    cofactor transport
G0:0051183
                    vitamin transporter activity
G0:0044345 1
                    stromal-epithelial cell signaling involved in prostate gland development
GO:0090544
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                    BAF-type complex
G0:0021814
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                    cell motility involved in cerebral cortex radial glia guided migration
G0:0021816 1
                    extension of a leading process involved in cell motility in cerebral
cortex radial glia guided migration
G0:0021812 1
                    neuronal-glial interaction involved in cerebral cortex radial glia guided
migration
G0:0021813 1
                    cell-cell adhesion involved in neuronal-glial interactions involved in
cerebral cortex radial glia guided migration
                    regulation of miRNA metabolic process
G0:2000628 1
G0:0060929 1
G0:0051238 1
                    atrioventricular node cell fate commitment
                    sequestering of metal ion
                    regulation of collagen metabolic process
G0:0010712 1
G0:0046824
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                    positive regulation of nucleocytoplasmic transport
G0:0019677
                    NAD catabolic process
                    tumor necrosis factor receptor superfamily complex
G0:0002947
G0:0071373
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                    cellular response to luteinizing hormone stimulus
G0:2000660
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                    negative regulation of interleukin-1-mediated signaling pathway
                    ERBB2-ERBB3 signaling pathway
GO:0038133
GO:0016011
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1
                    dystroglycan complex
G0:0090230
                    regulation of centromere complex assembly
                    retrotrapezoid nucleus neuron differentiation
G0:0061452
G0:0003270
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                    Notch signaling pathway involved in regulation of secondary heart field
cardioblast proliferation
G0:0014705 1
                    C zone
                    negative regulation of cell adhesion molecule production
G0:0060354
G0:0047066
                    phospholipid-hydroperoxide glutathione peroxidase activity
G0:0090239 1
                    regulation of histone H4 acetylation
G0:0045938
                    positive regulation of circadian sleep/wake cycle, sleep
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G0:0042583
                    chromaffin granule
G0:1990379
                    lipid transport across blood brain barrier
GO: 0042586
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                    gap junction channel activity involved in AV node cell-bundle of His cell
G0:0086077
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electrical coupling
G0:0043199 1
G0:0035616 1
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                    sulfate binding
                    histone H2B conserved C-terminal lysine deubiquitination
G0:0097291
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                    renal phosphate ion absorption
                    cytoplasmic actin-based contraction involved in cell motility
GO:0060327
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G0:0090249
            1
                    regulation of cell motility involved in somitogenic axis elongation
                    homocysteine desulfhydrase activity
GO:0047982
G0:0009360
                    DNA polymerase III complex
            1
G0:0015727
            1
                    lactate transport
G0:0060143
                    positive regulation of syncytium formation by plasma membrane fusion
                    myeloid dendritic cell cytokine production
GO:0002372
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GO:0002371
            1
                    dendritic cell cytokine production
G0:0006867
                    asparagine transport
G0:0005991
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                    trehalose metabolic process
G0:2001012
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                    mesenchymal cell differentiation involved in renal system development
G0:0006535
                    cysteine biosynthetic process from serine
                    guanosine-5'-triphosphate,3'-diphosphate diphosphatase activity
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                    holo-[acyl-carrier-protein] synthase activity
G0:0008897
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                    glycolate oxidase activity
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G0:0008893 1
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                    guanosine-3',5'-bis(diphosphate) 3'-diphosphatase activity
                    quanine deaminase activity
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                    UDP-xylose transmembrane transporter activity
GO:0001770
                    establishment of natural killer cell polarity
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G0:0016830
            1
                    carbon-carbon lyase activity
                    NAD(P)+ transhydrogenase (B-specific) activity
G0:0003957
G0:0003220
                    left ventricular cardiac muscle tissue morphogenesis
G0:0045342
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                    MHC class II biosynthetic process
G0:0014889
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                    muscle atrophy
G0:1902531
                    regulation of intracellular signal transduction
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G0:0014883
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                    transition between fast and slow fiber
                    beta-1,3-galactosyl-0-glycosyl-glycoprotein beta-1,6-N-
G0:0003829
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acetylglucosaminyltransferase activity
                    glycine decarboxylation via glycine cleavage system
G0:0019464
G0:0042801
                    polo kinase kinase activity
                    histone H2A-K119 monoubiquitination
G0:0036353
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                    globoside alpha-N-acetylgalactosaminyltransferase activity
                    galactosylgalactosylglucosylceramide beta-D-
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acetylgalactosaminyltransferase activity
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                    interleukin-18 receptor complex
                    positive regulation of signal transduction by p53 class mediator
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G0:0070543
                    response to linoleic acid
G0:0042930
                    enterobactin transport
                   otolith morphogenesis
G0:0032474
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G0:0032470
                    positive regulation of endoplasmic reticulum calcium ion concentration
G0:2000506
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                    negative regulation of energy homeostasis
G0:0021660
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                    rhombomere 3 formation
G0:0021666
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                    rhombomere 5 formation
G0:0019284
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                    L-methionine biosynthetic process from S-adenosylmethionine
                    regulation of actin filament depolymerization
G0:0030834
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G0:0002575
                    basophil chemotaxis
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G0:0033124
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                    regulation of GTP catabolic process
G0:0046587
                    positive regulation of calcium-dependent cell-cell adhesion
                    negative regulation of calcium-dependent cell-cell adhesion
GO:0046588
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G0:0051722
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                    protein C-terminal methylesterase activity
G0:0051724
                    NAD transporter activity
                    germline cell cycle switching, mitotic to meiotic cell cycle
G0:0051729
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G0:1902103
                    negative regulation of metaphase/anaphase transition of meiotic cell cycle
                    SMAD3-SMAD4 protein complex
G0:0071146
                    \label{eq:continuous} \mbox{negative regulation of transforming growth factor beta production}
G0:0071635
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G0:0046633
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                    alpha-beta T cell proliferation
                    transcription, RNA-templated
GO:0001172
                    1-alpha,25-dihydroxyvitamin D3 24-hydroxylase activity
G0:0030342
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G0:0030167
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                    proteoglycan catabolic process
                    histone kinase activity (H3-Y41 specific)
G0:0035401
G0:0061151
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                    BMP signaling pathway involved in renal system segmentation
G0:0061155
                    pulmonary artery endothelial tube morphogenesis
G0:0035409
                    histone H3-Y41 phosphorylation
G0:0060795
                    cell fate commitment involved in formation of primary germ layer
G0:0043033
                    isoamylase complex
G0:0043035
                    chromatin insulator sequence binding
G0:0048894
                    efferent axon development in a lateral line nerve
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                    vacuolar proton-transporting V-type ATPase, V1 domain
GO:0000221
G0:0000224
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G0:0000225
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G0:0004375
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                    glycine dehydrogenase (decarboxylating) activity
G0:0004420
                    hydroxymethylglutaryl-CoA reductase (NADPH) activity
G0:0047865
                    dimethylglycine dehydrogenase activity
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G0:0006683
            1
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GO:0006680
                    glucosylceramide catabolic process
G0:0005333
                    norepinephrine transmembrane transporter activity
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                    dopamine:sodium symporter activity
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                    serotonin:sodium symporter activity
G0:0042637
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                    catagen
G0:0042636
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                    negative regulation of hair cycle
G0:0004686
                    elongation factor-2 kinase activity
G0:0017082
                    mineralocorticoid receptor activity
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GO:0060649
            1
                    mammary gland bud elongation
                    histone H2A-S1 phosphorylation
G0:0043990
                    histone H3-K27 trimethylation
G0:0098532
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G0:1902109
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                    negative regulation of mitochondrial membrane permeability involved in
apoptotic process
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                    multicellular structure septum development
G0:0080121
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G0:0080122 1
                    AMP transmembrane transporter activity
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G0:0036030 1
G0:0036031 1
                    protein C inhibitor-plasma kallikrein complex
                    recruitment of mRNA capping enzyme to RNA polymerase II holoenzyme complex
                    mitochondrial threonyl-tRNA aminoacylation
G0:0070159 1
G0:2000560 1
G0:0071820 1
                    positive regulation of CD24 biosynthetic process
                    N-box binding
G0:0052909 1
                    18S rRNA (adenine(1779)-N(6)/adenine(1780)-N(6))-dimethyltransferase
activity
G0:1901731
                    positive regulation of platelet aggregation
                    Cajal-Retzius cell differentiation
G0:0021870 1
G0:0032509
                    endosome transport via multivesicular body sorting pathway
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G0:0002002
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                    regulation of angiotensin levels in blood
                    interleukin-9-mediated signaling pathway
G0:0038113
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G0:0038117
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                    C-C motif chemokine 19 receptor activity
                    chemokine (C-C motif) ligand 21 signaling pathway
G0:0038116
                    chemokine (C-C motif) ligand 19 signaling pathway
G0:0038115
                    interleukin-21-mediated signaling pathway
spermidine:oxygen oxidoreductase (3-aminopropanal-forming) activity
GO:0038114
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G0:0052902
                    N1-acetylspermine:oxygen oxidoreductase (3-acetamidopropanal-forming)
G0:0052903 1
activity
G0:0045575
                    basophil activation
G0:0061301 1
                    cerebellum vasculature morphogenesis
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G0:0061308
                    cardiac neural crest cell development involved in heart development
G0:0047042
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                    androsterone dehydrogenase (B-specific) activity
G0:0042033
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                    chemokine biosynthetic process
GO:0072428
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                    signal transduction involved in intra-S DNA damage checkpoint
G0:1900063
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                    regulation of peroxisome organization
                    enteroendocrine cell differentiation
G0:0035883
G0:0086053
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                    AV node cell to bundle of His cell communication by electrical coupling
G0:0086052
                    membrane repolarization during SA node cell action potential
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potential
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G0:0097275
                    cellular ammonia homeostasis
                    cellular urea homeostasis
G0:0097277
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G0:0097276
                    cellular creatinine homeostasis
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                    tricarboxylic acid transmembrane transport
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G0:0031770
                    growth hormone-releasing hormone receptor binding
G0:0031771
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                    type 1 hypocretin receptor binding
                    type 2 hypocretin receptor binding
G0:0031772
                    positive regulation of protein K63-linked deubiquitination negative regulation of lipid transport across blood brain barrier
GO:1903006
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G0:1903002
                    positive regulation of lipid transport across blood brain barrier
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                    melanocortin receptor binding
G0:0010869
            1
                    regulation of receptor biosynthetic process
G0:0044326
                    dendritic spine neck
G0:0010861
                    thyroid hormone receptor activator activity
G0:0001093
                    TFIIB-class transcription factor binding
G0:0010477
                    response to sulfur dioxide
G0:0050577
                    GDP-L-fucose synthase activity
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GO:0010046
                    response to mycotoxin
G0:0002684
                    positive regulation of immune system process
                    negative regulation of immune system process
G0:0002683
            1
GO:0051977
            1
                    lysophospholipid transport
G0:0045917
                    positive regulation of complement activation
G0:0051972
                    regulation of telomerase activity
            1
            1
G0:0090198
                    negative regulation of chemokine secretion
G0:0090195
            1
                    chemokine secretion
G0:0090194
                    negative regulation of glomerulus development
            1
G0:0060163
            1
                    subpallium neuron fate commitment
                    neural crest cell fate specification
G0:0014036
G0:0001792
                    polymeric immunoglobulin receptor activity
G0:0035090
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                    maintenance of apical/basal cell polarity
G0:0002353
                    plasma kallikrein-kinin cascade
G0:0007495
                    visceral mesoderm-endoderm interaction involved in midgut development
            1
            1
GO:0007499
                    ectoderm and mesoderm interaction
G0:0071384
                    cellular response to corticosteroid stimulus
G0:0016854
                    racemase and epimerase activity
            1
G0:0000053
            1
                    argininosuccinate metabolic process
G0:0000054
                    ribosomal subunit export from nucleus
                    UMP kinase activity
G0:0033862
            1
           1
                    histone methyltransferase activity (H4-K20 specific)
G0:0042799
G0:0009817 1
                    defense response to fungus, incompatible interaction
```

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G0:0004744 1
G0:0004747 1
                    retinal isomerase activity
                    ribokinase activity
G0:0052572 1
                    response to host immune response
GO:2000691
           1
                    negative regulation of cardiac muscle cell myoblast differentiation
G0:0008215
            1
                    spermine metabolic process
G0:0016933
                    extracellular-glycine-gated ion channel activity
           1
G0:0045368
                    positive regulation of interleukin-13 biosynthetic process
G0:0070703
            1
                    outer mucus layer
G0:0070701
                    mucus layer
G0:2000696 1
                    regulation of epithelial cell differentiation involved in kidney
development
G0:0003294 1
                    atrial ventricular junction remodeling
G0:0051296
                    establishment of meiotic spindle orientation
G0:0043152
            1
                    induction of bacterial agglutination
G0:0032458
           1
                    slow endocytic recycling
G0:0032459
                    regulation of protein oligomerization
G0:0032328
            1
                    alanine transport
G0:0034441
                    plasma lipoprotein particle oxidation
GO:2000522
                    positive regulation of immunological synapse formation
            1
G0:0033490
            1
                    cholesterol biosynthetic process via lathosterol
                    positive regulation of myeloid dendritic cell chemotaxis
GO:2000529
G0:0019912
                    cyclin-dependent protein kinase activating kinase activity
            1
G0:0002517
            1
                    T cell tolerance induction
G0:0002518
                    lymphocyte chemotaxis across high endothelial venule
           1
GO: 0044091
            1
                    membrane biogenesis
G0:0010522
            1
                    regulation of calcium ion transport into cytosol
                    positive regulation of intracellular steroid hormone receptor signaling
G0:0033145 1
pathway
G0:0016206
                    catechol O-methyltransferase activity
G0:0033143
                    regulation of intracellular steroid hormone receptor signaling pathway
           1
G0:0046031
            1
                    ADP metabolic process
           1
G0:0046032
                    ADP catabolic process
G0:0030690
                    Noc1p-Noc2p complex
                    regulation of killing of cells of other organism
GO:0051709
            1
                    positive regulation of cell killing
G0:0031343
            1
G0:0044549
                    GTP cyclohydrolase binding
G0:0044547
                    DNA topoisomerase binding
            1
                    L-cystine L-cysteine-lyase (deaminating)
G0:0044540
            1
                    lysophospholipid acyltransferase activity
G0:0071617
G0:0071615
                    oxidative deethylation
            1
G0:0071614
            1
                    linoleic acid epoxygenase activity
                    positive regulation of engulfment of apoptotic cell
G0:1901076
G0:1901074
                    regulation of engulfment of apoptotic cell
            1
G0:0070884
            1
                    regulation of calcineurin-NFAT signaling cascade
                    TFIIIC-class transcription factor binding
G0:0001156
G0:0031714
            1
                    C5a anaphylatoxin chemotactic receptor binding
G0:0047693
            1
                    ATP diphosphatase activity
                    Noc4p-Nop14p complex
GO:0030692
G0:0035790
                    platelet-derived growth factor receptor-alpha signaling pathway
G0:1990144
                    intrinsic apoptotic signaling pathway in response to hypoxia
G0:0004852
                    uroporphyrinogen-III synthase activity
G0:0035428
            1
                    hexose transmembrane transport
G0:0090284
            1
                    positive regulation of protein glycosylation in Golgi
G0:0030144 1
                    alpha-1,6-mannosylglycoprotein 6-beta-N-acetylglucosaminyltransferase
activity
G0:0003170
                    heart valve development
G0:0042694
                    muscle cell fate specification
G0:0043017
                    positive regulation of lymphotoxin A biosynthetic process
            1
G0:0033906
            1
                    hyaluronoglucuronidase activity
G0:0072395
                    signal transduction involved in cell cycle checkpoint
           1
GO:0004919
            1
                    interleukin-9 receptor activity
                    regulation of hematopoietic stem cell proliferation
G0:1902033
            1
                    positive regulation of phosphatidylcholine biosynthetic process
G0:2001247
G0:2001246
                    negative regulation of phosphatidylcholine biosynthetic process
            1
G0:0005350
            1
                    pyrimidine nucleobase transmembrane transporter activity
G0:0005353
                    fructose transmembrane transporter activity
G0:0009756
                    carbohydrate mediated signaling
            1
G0:0042659
            1
                    regulation of cell fate specification
G0:0042658
                    MHC class II protein binding, via antigen binding groove
GO:0031231
                    intrinsic component of peroxisomal membrane
            1
                    regulation of steroid hormone biosynthetic process
G0:0090030
            1
G0:0090038
                    negative regulation of protein kinase C signaling
G0:0051148
                    negative regulation of muscle cell differentiation
            1
G0:0044301
            1
                    climbing fiber
G0:0080101 1
                    phosphatidyl-N-dimethylethanolamine N-methyltransferase activity
```

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G0:0044302 1
G0:0018271 1
                    dentate gyrus mossy fiber
                    biotin-protein ligase activity
G0:0018272 1
                    protein-pyridoxal-5-phosphate linkage via peptidyl-N6-pyridoxal phosphate-
L-lvsine
G0:0004001
                    adenosine kinase activity
G0:0001632 1
                    leukotriene B4 receptor activity
GO:0001631
           1
1
                    cysteinyl leukotriene receptor activity
G0:0032848
                    negative regulation of cellular pH reduction
                    positive regulation of mitochondrial translation
G0:0070131 1
G0:0070130
           1
                    negative regulation of mitochondrial translation
G0:0032841
            1
                    calcitonin binding
G0:0001984 1
                    vasodilation of artery involved in baroreceptor response to increased
systemic arterial blood pressure
G0:0001985 1
                    negative regulation of heart rate involved in baroreceptor response to
increased systemic arterial blood pressure
GO:0001986 1 negative regulation of the force of heart contraction involved in baroreceptor response to increased systemic arterial blood pressure
G0:0001987 1
                   vasoconstriction of artery involved in baroreceptor response to lowering
of systemic arterial blood pressure
G0:0001980
            1
                    regulation of systemic arterial blood pressure by ischemic conditions
                    negative regulation of lung ciliated cell differentiation
G0:1901247
G0:0001988 1
                    positive regulation of heart rate involved in baroreceptor response to
decreased systemic arterial blood pressure
G0:0021859 1
                    pyramidal neuron differentiation
           1
G0:0019056
                    modulation by virus of host transcription
G0:0000293
            1
                    ferric-chelate reductase activity
G0:0038178 1
                    complement component C5a signaling pathway
           1
GO:0050354
                    triokinase activity
G0:0038172
            1
                    interleukin-33-mediated signaling pathway
G0:0055113
                    epiboly involved in gastrulation with mouth forming second
            1
           1
1
G0:0052725
                    inositol-1,3,4-trisphosphate 6-kinase activity
G0:0033791
                    3alpha,7alpha,12alpha-trihydroxy-5beta-cholestanoyl-CoA 24-hydroxylase
activity
G0:0045556
           1
                    positive regulation of TRAIL biosynthetic process
G0:0019637
            1
                    organophosphate metabolic process
G0:0014741
                    negative regulation of muscle hypertrophy
G0:0042018
           1
1
                    interleukin-22 receptor activity
G0:0043697
                    cell dedifferentiation
G0:0047536
                    2-aminoadipate transaminase activity
G0:0042015
                    interleukin-20 binding
            1
G0:0047021
            1
                    15-hydroxyprostaglandin dehydrogenase (NADP+) activity
GO:0047020
                    15-hydroxyprostaglandin-D dehydrogenase (NADP+) activity
G0:0003176
            1
                    aortic valve development
G0:0003175
            1
                    tricuspid valve development
G0:0003174
                    mitral valve development
G0:1902991
            1
                    regulation of amyloid precursor protein catabolic process
G0:0050929
            1
                    induction of negative chemotaxis
                    regulation of protein K63-linked ubiquitination
GO: 1900044
G0:1900045
                    negative regulation of protein K63-linked ubiquitination
            1
G0:0006188
                    IMP biosynthetic process
G0:0006185
                    dGDP biosynthetic process
G0:0035655
                    interleukin-18-mediated signaling pathway
            1
G0:0061360
            1
                    optic chiasma development
G0:0031936
                    negative regulation of chromatin silencing
GO:0031935
                    regulation of chromatin silencing
            1
G0:0031933
            1
                    telomeric heterochromatin
                    positive regulation of cholesterol metabolic process
G0:0090205
G0:0090207
                    regulation of triglyceride metabolic process
            1
G0:0060366
            1
                    lambdoid suture morphogenesis
G0:1902992
                    negative regulation of amyloid precursor protein catabolic process
G0:0010847
            1
                    regulation of chromatin assembly
G0:0072544
            1
                    L-DOPA binding
G0:0010844
                    recombination hotspot binding
                    negative regulation of phospholipid efflux
G0:1902999
            1
G0:0010849
            1
                    regulation of proton-transporting ATPase activity, rotational mechanism
G0:0005130
                    granulocyte colony-stimulating factor receptor binding
G0:0005984
                    disaccharide metabolic process
            1
G0:0005985
            1
                    sucrose metabolic process
G0:0017090
                    meprin A complex
G0:0017096
                    acetylserotonin O-methyltransferase activity
            1
G0:0017099
            1
                    very-long-chain-acyl-CoA dehydrogenase activity
G0:0045977
                    positive regulation of mitotic cell cycle, embryonic
G0:0008721
            1
                    D-serine ammonia-lyase activity
G0:0060187
            1
                    cell pole
G0:0008725 1
                    DNA-3-methyladenine glycosylase activity
```

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G0:0005183 1
G0:0006638 1
                    gonadotropin hormone-releasing hormone activity
                    neutral lipid metabolic process
G0:0031592 1
                    centrosomal corona
G0:2001051
                    positive regulation of tendon cell differentiation
            1
G0:0036220
            1
                    ITP diphosphatase activity
G0:2001057
                    reactive nitrogen species metabolic process
           1
G0:0071466
                    cellular response to xenobiotic stimulus
G0:0004588
            1
                    orotate phosphoribosyltransferase activity
                    ornithine-oxo-acid transaminase activity
G0:0004587
            1
G0:0004586
           1
                    ornithine decarboxylase activity
G0:0004585
            1
                    ornithine carbamoyltransferase activity
                    dolichyl-phosphate beta-glucosyltransferase activity
G0:0004581
           1
                    detection of yeast
G0:0001879
GO:0008050
            1
                    female courtship behavior
G0:0008052
            1
                    sensory organ boundary specification
G0:0008057
                    eye pigment granule organization
G0:0072183
            1
                    negative regulation of nephron tubule epithelial cell differentiation
                    renal vesicle progenitor cell differentiation
G0:0072184
            1
GO:0050121
                    N-acylglucosamine 2-epimerase activity
            1
G0:0008275
            1
                    gamma-tubulin small complex
G0:0070722
                    Tle3-Aes complex
G0:2000723
                    negative regulation of cardiac vascular smooth muscle cell differentiation
            1
G0:2000097
            1
                    regulation of smooth muscle cell-matrix adhesion
                    regulation of NAD(P)H oxidase activity
G0:0033860
           1
G0:0071242
            1
                    cellular response to ammonium ion
G0:0070586
            1
                    cell-cell adhesion involved in gastrulation
                    proprioception involved in equilibrioception
G0:0051355
G0:0032307
                    negative regulation of prostaglandin secretion positive regulation of forebrain neuron differentiation
           1
1
G0:2000979
G0:2000545 1
                    negative regulation of endothelial cell chemotaxis to fibroblast growth
factor
G0:2000547
                    regulation of dendritic cell dendrite assembly
                    positive regulation of protein geranylgeranylation
G0:2000541
           1
                    negative regulation of dendritic cell dendrite assembly
GO: 2000548
G0:0019935
            1
                    cyclic-nucleotide-mediated signaling
G0:1900452
                    regulation of long term synaptic depression
G0:0002534
                    cytokine production involved in inflammatory response
            1
           1
                    regulation of transcription from RNA polymerase II promoter involved in
G0:2000976
detection of glucose
G0:0015797 1
                    mannitol transport
G0:0015790
            1
                    UDP-xylose transport
G0:0001844
                    protein insertion into mitochondrial membrane involved in apoptotic
signaling pathway
G0:0001847
            1
                    opsonin receptor activity
                    glycoprotein-N-acetylgalactosamine 3-beta-galactosyltransferase activity
G0:0016263
G0:0015692
            1
                    lead ion transport
                    sequestering of BMP from receptor via BMP binding
G0:0038098
            1
G0:0034463
                    90S preribosome assembly
G0:0071678
            1
                    olfactory bulb axon guidance
G0:0035229
                    positive regulation of glutamate-cysteine ligase activity
G0:0030302
                    deoxynucleotide transport
                    transport of viral material towards nucleus
G0:0075606
            1
G0:0033165
            1
                    interphotoreceptor matrix
G0:0033164
                    glycolipid 6-alpha-mannosyltransferase activity
                    poly(C) RNA binding
GO:0017130
            1
                    lung proximal/distal axis specification
G0:0061115
            1
                    metanephric cortical collecting duct development
G0:0072219
G0:0072213
                    metanephric capsule development
            1
G0:0072214
            1
                    metanephric cortex development
G0:0003721
                    telomeric template RNA reverse transcriptase activity
            1
G0:0000262
                    {\tt mitochondrial\ chromosome}
            1
G0:0045091
                    regulation of single stranded viral RNA replication via double stranded
DNA intermediate
G0:0004978 1
                    corticotropin receptor activity
G0:0004979
            1
                    beta-endorphin receptor activity
G0:0072377
           1
                    blood coagulation, common pathway
G0:0072376
           1
1
                    protein activation cascade
G0:0050983
                    deoxyhypusine biosynthetic process from spermidine
G0:2001264
                    negative regulation of C-C chemokine binding
G0:0005334
                    norepinephrine:sodium symporter activity
            1
G0:0060648
            1
                    mammary gland bud morphogenesis
G0:0090010 1
                    transforming growth factor beta receptor signaling pathway involved in
primitive streak formation
GO:0010309
           1
                    acireductone dioxygenase [iron(II)-requiring] activity
                    axial mesodermal cell fate specification
G0:0048327 1
```

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G0:0004398 1
G0:0051160 1
                    histidine decarboxylase activity L-xylitol catabolic process
                    histidine ammonia-lyase activity
G0:0004397 1
G0:0004395 1
G0:0044329 1
                    hexaprenyldihydroxybenzoate methyltransferase activity
                    canonical Wnt signaling pathway involved in positive regulation of cell-
cell adhesion
GO:0044328 1 canonic endothelial cell migration
                    canonical Wnt signaling pathway involved in positive regulation of
G0:0010045 1
                   response to nickel cation
G0:0032385 1
G0:0032386 1
                    positive regulation of intracellular cholesterol transport
                    regulation of intracellular transport
G0:0032439 1
                    endosome localization
G0:0004027
                    alcohol sulfotransferase activity
           1
1
G0:0007285
                    primary spermatocyte growth
                    growth hormone secretagogue receptor activity N-glycan fucosylation
G0:0001616 1
G0:0036071
           1
                    positive regulation of CD8-positive, alpha-beta T cell differentiation
G0:0043378
G0:0032799
                    low-density lipoprotein receptor particle metabolic process
           1
G0:0032791
                    lead ion binding
G0:0071866
            1
                    negative regulation of apoptotic process in bone marrow
                    response to catecholamine
G0:0071869 1
           1
                    short-chain fatty acid uptake transporter activity
G0:0015636
G0:2000391
            1
                    positive regulation of neutrophil extravasation
                    regulation of lamellipodium morphogenesis
G0:2000392
            1
           1
GO:0019035
                    viral integration complex
G0:0038154
            1
                    interleukin-11-mediated signaling pathway
G0:0050692 1
                    DBD domain binding
G0:1901194
           1
1
                    negative regulation of formation of translation preinitiation complex
G0:0055130
                    D-alanine catabolic process
                    C3HC4-type RING finger domain binding
G0:0055131
            1
G0:0016072
           1
1
                    rRNA metabolic process
G0:0016073
                    snRNA metabolic process
                    snoRNA metabolic process
G0:0016074
                    snoRNA catabolic process
G0:0016077
            1
G0:0016078
            1
                    tRNA catabolic process
                    ciliary neurotrophic factor binding
GO:0070119
           1
1
G0:0070442
                    integrin alphaIIb-beta3 complex
G0:0070447
                    positive regulation of oligodendrocyte progenitor proliferation
G0:0070446 1
                    negative regulation of oligodendrocyte progenitor proliferation
           1
GO:0060431
                    primary lung bud formation
G0:0071247
            1
                    cellular response to chromate
                    cellular response to inorganic substance
GO:0071241
G0:1901994
           1
1
                    negative regulation of meiotic cell cycle phase transition
G0:0043244
                    regulation of protein complex disassembly
                    regulation of vasoconstriction by circulating norepinephrine
G0:0003117
           1
G0:0043241
                    protein complex disassembly
G0:2000971
                    negative regulation of detection of glucose
G0:2000973
                    regulation of pro-B cell differentiation
G0:1900020
                    positive regulation of protein kinase C activity
G0:0034635
                    glutathione transport
G0:0034632 1
                    retinol transporter activity
G0:0034633
           1
1
                    retinol transport
G0:0097237
                    cellular response to toxic substance
G0:0043370 1
                    regulation of CD4-positive, alpha-beta T cell differentiation
G0:0061347
                    planar cell polarity pathway involved in outflow tract morphogenesis
            1
           1
G0:0061348
                    planar cell polarity pathway involved in ventricular septum morphogenesis
G0:0061349 1
                    planar cell polarity pathway involved in cardiac right atrium
morphogenesis
G0:0090222 1
                    centrosome-templated microtubule nucleation
G0:0060436 1
                    bronchiole morphogenesis
           1
G0:0015817
                    histidine transport
G0:0010825
            1
                    positive regulation of centrosome duplication
G0:0046203
                    spermidine catabolic process
G0:0010823
                    negative regulation of mitochondrion organization
            1
G0:0010822
            1
                    positive regulation of mitochondrion organization
G0:0051939
                    gamma-aminobutyric acid import
GO:0005960
                    glycine cleavage complex
            1
           1
GO:0005969
                    serine-pyruvate aminotransferase complex
G0:0045957
                    negative regulation of complement activation, alternative pathway
G0:1902170
                    cellular response to reactive nitrogen species
            1
                    fibroblast growth factor receptor apoptotic signaling pathway
G0:1902178
            1
G0:0005618 1
                    cell wall
                    cell differentiation involved in metanephros development
           1
1
G0:0072202
G0:0036245
                    cellular response to menadione
G0:1990035 1
                    calcium ion import into cell
```

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G0:1990037 1
G0:1990032 1
                    Lewy body core parallel fiber
                    alpha-N-acetylglucosaminidase activity
G0:0004561 1
G0:0004567
                    beta-mannosidase activity
           1
G0:0008843
            1
                    endochitinase activity
                    dol-P-Man:Man(7)GlcNAc(2)-PP-Dol alpha-1,6-mannosyltransferase activity
G0:0052917
GO:0098909
                    regulation of cardiac muscle cell action potential involved in regulation
           1
of contraction
G0:0008079 1
                    translation termination factor activity
           1
G0:0008336
                    gamma-butyrobetaine dioxygenase activity
G0:0070179
            1
                    D-serine biosynthetic process
G0:0000016 1
                    lactase activity
                    positive regulation of cyclin-dependent protein serine/threonine kinase
G0:0031662 1
activity involved in G2/M transition of mitotic cell cycle
G0:1903223 1
                    positive regulation of oxidative stress-induced neuron death
                    IMP cyclohydrolase activity
G0:0003937
           1
G0:0003284
                    septum primum development
G0:0045324 1
                    late endosome to vacuole transport
           1
G0:0070110
                    ciliary neurotrophic factor receptor complex
G0:0045081
            1
                    negative regulation of interleukin-10 biosynthetic process
G0:0070975 1
                    FHA domain binding
G0:0002882 1
                    positive regulation of chronic inflammatory response to non-antigenic
stimulus
G0:0002885 1
                    positive regulation of hypersensitivity
G0:0036323 1
                    vascular endothelial growth factor receptor-1 signaling pathway
G0:0032366
            1
                    intracellular sterol transport
G0:0032361 1
                    pyridoxal phosphate catabolic process
           1
G0:0046980
                    tapasin binding
G0:0046986
            1
                    negative regulation of hemoglobin biosynthetic process
G0:0019778
                    Atg12 activating enzyme activity
           1
G0:0019779
            1
                    Atg8 activating enzyme
           1
G0:0071478
                    cellular response to radiation
                    complement component C4b receptor activity
G0:0001861
                    negative regulation of fibroblast growth factor receptor signaling pathway
GO:2000703
           1
involved in ureteric bud formation
G0:2000707 1
                    positive regulation of dense core granule biogenesis
G0:2000706 1
G0:0070304 1
                    negative regulation of dense core granule biogenesis
                    positive regulation of stress-activated protein kinase signaling cascade
G0:0070305 1
                    response to cGMP
                    chemokine (C-C motif) ligand 19 binding
G0:0035757
            1
G0:0033382
            1
                    maintenance of granzyme B location in T cell secretory granule
                    positive regulation of chemokine (C-C motif) ligand 5 production
G0:0071651
                    negative regulation of chemokine (C-C motif) ligand 5 production
G0:0071650
           1
1
G0:2000568
                    positive regulation of memory T cell activation
                    positive regulation of CD8-positive, alpha-beta T cell proliferation
G0:2000566
G0:0035800
           1
                    deubiquitinase activator activity
G0:2000564
            1
                    regulation of CD8-positive, alpha-beta T cell proliferation
G0:0034401
                    regulation of transcription by chromatin organization
G0:2000562
                    negative regulation of CD4-positive, alpha-beta T cell proliferation
G0:2000562 1
G0:0034402 1
                    recruitment of 3'-end processing factors to RNA polymerase II holoenzyme
complex
G0:0035752
                    lysosomal lumen pH elevation
           1
                    protein localization to myelin sheath abaxonal region
G0:0035750
G0:0030329
                    prenylcysteine metabolic process
G0:0035758
                    chemokine (C-C motif) ligand 21 binding
            1
G0:0008437
            1
                    thyrotropin-releasing hormone activity
G0:0030184
                    nitric oxide transmembrane transporter activity
G0:0017116
                    single-stranded DNA-dependent ATP-dependent DNA helicase activity
            1
G0:0017113
            1
                    dihydropyrimidine dehydrogenase (NADP+) activity
G0:0042228
                    interleukin-8 biosynthetic process
                    positive regulation of histone modification
G0:0031058
            1
G0:0072239
            1
                    metanephric glomerulus vasculature development
G0:0006557
                    S-adenosylmethioninamine biosynthetic process
G0:0043056
                    forward locomotion
            1
G0:0033986
            1
                    response to methanol
G0:0046690
                    response to tellurium ion
                    recycling endosome to Golgi transport
G0:0071955
            1
G0:0000243
            1
                    commitment complex
G0:0000246
                    delta24(24-1) sterol reductase activity
G0:0000248
                    C-5 sterol desaturase activity
            1
G0:0072359
            1
                    circulatory system development
G0:0047804
                    cysteine-S-conjugate beta-lyase activity
G0:0060082
            1
                    eye blink reflex
G0:0072356
            1
                    chromosome passenger complex localization to kinetochore
G0:0031583 1
                    phospholipase D-activating G-protein coupled receptor signaling pathway
```

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G0:0031275 1
G0:0060668 1
                    regulation of lateral pseudopodium assembly
                    regulation of branching involved in salivary gland morphogenesis by
extracellular matrix-epithelial cell signaling
G0:0031279 1
                    regulation of cyclase activity
                    nipple sheath formation
G0:0060659
            1
G0:0002079 1
                    inner acrosomal membrane
                    glandular epithelial cell maturation
G0:0002071
           1
G0:0035622
                    intrahepatic bile duct development
G0:0022607 1
                    cellular component assembly
G0:1990440 1
                    positive regulation of transcription from RNA polymerase II promoter in
response to endoplasmic reticulum stress
G0:0098599 1
                    palmitoyl hydrolase activity
G0:0051102
                    DNA ligation involved in DNA recombination
G0:0009063
            1
                    cellular amino acid catabolic process
G0:0034986
            1
                    iron chaperone activity
G0:0009069
                    serine family amino acid metabolic process
            1
G0:0010021
            1
                    amylopectin biosynthetic process
G0:0050512
                    lactosylceramide 4-alpha-galactosyltransferase activity
GO:0034440
                    lipid oxidation
            1
G0:0004044
            1
                    amidophosphoribosyltransferase activity
                    acetyl-CoA:L-glutamate N-acetyltransferase activity
G0:0004042
G0:0004043
                    L-aminoadipate-semialdehyde dehydrogenase activity
            1
                    amidase activity
G0:0004040
            1
G0:0031715
            1
                    C5L2 anaphylatoxin chemotactic receptor binding
           1
G0:0001674
                    female germ cell nucleus
G0:0036054
            1
                    protein-malonyllysine demalonylase activity
G0:0034714 1
                    type III transforming growth factor beta receptor binding
                    positive regulation of low-density lipoprotein particle receptor catabolic
G0:0032805 1
process
G0:0032804 1
                    negative regulation of low-density lipoprotein particle receptor catabolic
process
G0:1901208 1
                    negative regulation of heart looping
G0:1901201 1
                    regulation of extracellular matrix assembly
           1
GO: 1901203
                    positive regulation of extracellular matrix assembly
                    positive regulation of protein phosphatase type 2B activity
G0:0032514
            1
                    intrinsic apoptotic signaling pathway in response to osmotic stress
G0:0008627
G0:0043610 1
G0:0043618 1
                    regulation of carbohydrate utilization
                    regulation of transcription from RNA polymerase II promoter in response to
stress
G0:0046092 1
                    deoxycytidine metabolic process
G0:0098902
            1
                    regulation of membrane depolarization during action potential
GO:0070685
                    macropinocytic cup
G0:0070684
            1
1
                    seminal clot liquefaction
G0:0071279
                    cellular response to cobalt ion
                    positive regulation of inhibitory postsynaptic membrane potential regulation of cardiac muscle cell action potential
G0:0097151
G0:0098901
            1
G0:0004569
                    glycoprotein endo-alpha-1,2-mannosidase activity
G0:0043812
                    phosphatidylinositol-4-phosphate phosphatase activity
G0:0002066
                    columnar/cuboidal epithelial cell development
            1
GO:1900186
                    negative regulation of clathrin-mediated endocytosis
G0:0045513
                    interleukin-27 binding
G0:0070463
                    tubulin-dependent ATPase activity
            1
G0:0070462
            1
                    plus-end specific microtubule depolymerization
G0:0008650
                    rRNA (uridine-2'-0-)-methyltransferase activity
                    adenosine-diphosphatase activity
G0:0043262
            1
G0:0003131
            1
                    mesodermal-endodermal cell signaling
G0:1900005
                    positive regulation of serine-type endopeptidase activity
G0:0060879
                    semicircular canal fusion
            1
                    anterior semicircular canal development
G0:0060873
            1
                    semicircular canal development
G0:0060872
GO:0060875
                    lateral semicircular canal development
            1
G0:0060876
            1
                    semicircular canal formation
                    GDP-mannose 4,6-dehydratase activity
G0:0008446 1
                    positive regulation of type III interferon production
G0:0034346
            1
                    oxidoreductase activity, oxidizing metal ions, NAD or NADP as acceptor lamellipodium assembly involved in ameboidal cell migration
G0:0016723
            1
G0:0003363
                    positive regulation of lysosomal membrane permeability
G0:0097214
            1
G0:0044524
            1
                    protein sulfhydration
                    RNA polymerase II core promoter sequence-specific DNA binding
G0:0001075 1
transcription factor activity involved in preinitiation complex assembly
G0:0046222 1
                    aflatoxin metabolic process
G0:0046223 1
                    aflatoxin catabolic process
G0:0032996 1
G0:0002663 1
                    Bcl3-Bcl10 complex
                    positive regulation of B cell tolerance induction
G0:0002668 1
                    negative regulation of T cell anergy
```

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G0:0048178 1
G0:1903200 1
                    negative regulation of hepatocyte growth factor biosynthetic process
                    positive regulation of L-dopa decarboxylase activity
G0:0071550 1
                    death-inducing signaling complex assembly
G0:1903209 1
G0:0006769 1
                    positive regulation of oxidative stress-induced cell death
G0:0006769
                    nicotinamide metabolic process
G0:0001133 1
                    sequence-specific transcription regulatory region DNA binding RNA
polymerase II transcription factor recruiting transcription factor activity
G0:0014029 1
                    neural crest formation
G0:0036261 1
                    7-methylguanosine cap hypermethylation
G0:0036269 1
G0:0005231 1
                    swimming behavior
                    excitatory extracellular ligand-gated ion channel activity
G0:0000035 1
                    acyl binding
G0:0014005
           1
1
                    microglia development
G0:0005731
                    nucleolus organizer region
G0:0004728 1
                    receptor signaling protein tyrosine phosphatase activity
G0:0031644
           1
1
                    regulation of neurological system process
G0:2000852
                    regulation of corticosterone secretion
G0:0003029 1
                    detection of hypoxic conditions in blood by carotid body chemoreceptor
signaling
G0:1902847
            1
                    regulation of neuronal signal transduction
G0:0042886 1
                    amide transport
G0:0003026 1
                    regulation of systemic arterial blood pressure by aortic arch baroreceptor
feedback
G0:0003939 1
                    L-iditol 2-dehydrogenase activity
G0:0003285 1
G0:1990258 1
                    septum secundum development
                    histone glutamine methylation
G0:0002863 1
                    positive regulation of inflammatory response to antigenic stimulus
G0:0002866
           1
1
                    positive regulation of acute inflammatory response to antigenic stimulus
G0:0019172
                    glyoxalase III activity
G0:0009720
                    detection of hormone stimulus
            1
G0:0018009
           1
1
                    N-terminal peptidyl-L-cysteine N-palmitoylation
G0:0019970
                    interleukin-11 binding
G0:0019203
                    carbohydrate phosphatase activity
           1
                    positive regulation of type III hypersensitivity
G0:0001805
G0:0001806
            1
                    type IV hypersensitivity
                    regulation of cytoplasmic translation
G0:2000765
G0:2000764
                    positive regulation of semaphorin-plexin signaling pathway involved in
            1
outflow tract morphogenesis
G0:2000767 1
                    positive regulation of cytoplasmic translation
                    positive regulation of type IV hypersensitivity negative regulation of type IV hypersensitivity
G0:0001809
G0:0001809 1
G0:0001808 1
                    positive regulation of transcription from RNA polymerase II promoter
G0:2000763 1
involved in norepinephrine biosynthetic process
G0:0038052 1
                    estrogen-activated sequence-specific DNA binding RNA polymerase II
transcription factor activity
G0:0034423 1
                    autophagic vacuole lumen
G0:0033342
            1
                    negative regulation of collagen binding
G0:0002352 1
                    B cell negative selection
G0:0035826 1
G0:0035827 1
                    rubidium ion transport
                    rubidium ion transmembrane transporter activity
G0:0035770 1
                    ribonucleoprotein granule
G0:0035772
                    interleukin-13-mediated signaling pathway
            1
           1
                    positive regulation of the force of heart contraction by chemical signal
GO:0003099
G0:0003096
                    renal sodium ion transport
G0:0016517
                    interleukin-12 receptor activity
            1
           1
G0:0035444
                    nickel cation transmembrane transport
G0:0016515 1
                    interleukin-13 receptor activity
G0:0045703
            1
1
                    ketoreductase activity
G0:0016519
                    gastric inhibitory peptide receptor activity
G0:0017177
                    glucosidase II complex
G0:0017174
            1
                    glycine N-methyltransferase activity
G0:0017172
            1
                    cysteine dioxygenase activity
                    cellular modified amino acid metabolic process
G0:0006575
G0:0005232
                    serotonin-activated cation-selective channel activity
            1
G0:0072259
            1
                    metanephric interstitial cell development
G0:0090232
                    positive regulation of spindle checkpoint
GO:0031073
            1
                    cholesterol 26-hydroxylase activity
GO:0031071
            1
                    cysteine desulfurase activity
G0:0002357
                    defense response to tumor cell
G0:0060064
                    Spemann organizer formation at the anterior end of the primitive streak
            1
G0:0015993
            1
                    molecular hydrogen transport
G0:0032817
                    regulation of natural killer cell proliferation
GO:0097001
                    ceramide binding
            1
           1
G0:0052899
                    N(1), N(12)-diacetylspermine:oxygen oxidoreductase (3-acetamidopropanal-
forming) activity
```

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G0:0098609 1
G0:0052894 1
                    cell-cell adhesion
                    norspermine:oxygen oxidoreductase activity
G0:0052895 1
                    N1-acetylspermine:oxygen oxidoreductase (N1-acetylspermidine-forming)
activity
GO:0060606
G0:0060602
           1
                    branch elongation of an epithelium
G0:0035620
                    ceramide transporter activity
G0:0005009
            1
                    insulin-activated receptor activity
G0:0005008 1
                    hepatocyte growth factor-activated receptor activity
G0:0002059
            1
                    thymine binding
G0:0002058
            1
                    uracil binding
G0:0051125
            1
                    regulation of actin nucleation
GO:0051121
                    hepoxilin metabolic process
G0:0044819
            1
                    mitotic G1/S transition checkpoint
G0:0030704
            1
                    vitelline membrane formation
G0:1901211
                    negative regulation of cardiac chamber formation
G0:1901640
            1
                    XTP binding
G0:0046880
                    regulation of follicle-stimulating hormone secretion
            1
G0:2000384
                    negative regulation of ectoderm development
            1
G0:0008655
            1
                    pyrimidine-containing compound salvage
GO: 0044795
                    trans-Golgi network to recycling endosome transport
G0:0032280
                    symmetric synapse
            1
G0:0008609
            1
                    alkylglycerone-phosphate synthase activity
G0:0008352
            1
                    katanin complex
                    thiocyanate metabolic process
G0:0018969
            1
G0:0045281
            1
                    succinate dehydrogenase complex
G0:0070661
                    leukocyte proliferation
GO:0070662
                    mast cell proliferation
                    negative regulation of leukocyte proliferation negative regulation of mast cell proliferation
G0:0070664
            1
G0:0070667
            1
G0:0004061
            1
                    arylformamidase activity
           1
GO:0004066
                    asparagine synthase (glutamine-hydrolyzing) activity
G0:0015432
                    bile acid-exporting ATPase activity
                    heme-transporting ATPase activity
GO: 0015439
            1
G0:0040017
            1
                    positive regulation of locomotion
G0:0070407
                    oxidation-dependent protein catabolic process
G0:0070401
                    NADP+ binding
            1
           1
G0:0071880
                    adenylate cyclase-activating adrenergic receptor signaling pathway
                    immature T cell proliferation in thymus
G0:0033080
G0:0015734
                    taurine transport
            1
G0:0060856
            1
                    establishment of blood-brain barrier
                    chylomicron remnant
G0:0034360
G0:0034365
                    discoidal high-density lipoprotein particle
            1
           1
G0:0016160
                    amylase activity
                    negative regulation of cortisol secretion
G0:0051463
G0:0051460
            1
                    negative regulation of corticotropin secretion
                    U7 snRNA binding
G0:0071209
G0:0071750
                    dimeric IgA immunoglobulin complex
G0:0071206
                    establishment of protein localization to juxtaparanode region of axon
GO:0001016
                    RNA polymerase III regulatory region DNA binding
G0:0046711
                    GDP biosynthetic process
G0:0046713
                    borate transport
            1
           1
G0:0008973
                    phosphopentomutase activity
G0:0008753
                    NADPH dehydrogenase (quinone) activity
G0:0035543
                    positive regulation of SNARE complex assembly
            1
GO:0008750
            1
                    NAD(P)+ transhydrogenase (AB-specific) activity
G0:0035545
                    determination of left/right asymmetry in nervous system
G0:0035544
                    negative regulation of SNARE complex assembly
            1
           1
G0:0061073
                    ciliary body morphogenesis
G0:0035548
                    negative regulation of interferon-beta secretion
                    positive regulation of C-C chemokine receptor CCR7 signaling pathway
GO: 1903082
            1
G0:0060479
            1
                    lung cell differentiation
                    cortical granule
G0:0060473
G0:1990079
                    cartilage homeostasis
            1
G0:0071477
            1
                    cellular hypotonic salinity response
G0:0035511
                    oxidative DNA demethylation
G0:0006743
                    ubiquinone metabolic process
            1
G0:0006742
            1
                    NADP catabolic process
G0:0031626
                    beta-endorphin binding
G0:0031620
                    regulation of fever generation
            1
G0:0031628
            1
                    opioid receptor binding
                    U4atac snRNP
G0:0005690
G0:0022410
                    circadian sleep/wake cycle process
            1
           1
                    positive regulation of T cell mediated immune response to tumor cell
G0:0002842
                    negative regulation of cardiac muscle adaptation
G0:0010616 1
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G0:0015228 1
G0:0008297 1
                    coenzyme A transmembrane transporter activity
                    single-stranded DNA exodeoxyribonuclease activity
G0:0008296 1
                    3'-5'-exodeoxyribonuclease activity
           1
                    antifungal humoral response
G0:0019732
G0:0002590
                    negative regulation of antigen processing and presentation of peptide
antigen via MHC class I
G0:0002591 1
                    positive regulation of antigen processing and presentation of peptide
antigen via MHC class I
G0:0071926 1
                   endocannabinoid signaling pathway
G0:0070346 1
                    positive regulation of fat cell proliferation
G0:0007174
            1
                    epidermal growth factor catabolic process
                    cardiac muscle thin filament assembly
G0:0071691 1
G0:0035847
           1
1
                    uterine epithelium development
G0:0035844
                    cloaca development
G0:0035841
                    new growing cell tip
G0:0035849
           1
1
                    nephric duct elongation
                    6-phosphofructo-2-kinase/fructose-2,6-biphosphatase 1 complex
G0:0043540
G0:0003071 1
                    renal system process involved in regulation of systemic arterial blood
pressure
G0:0043545
                    molybdopterin cofactor metabolic process
                    regulation of kinase activity
G0:0043549 1
GO:0016287
                    glycerone-phosphate O-acyltransferase activity
            1
           ì
G0:0045724
                    positive regulation of cilium assembly
                    positive regulation of single stranded viral RNA replication via double
G0:0045870 1
stranded DNA intermediate
G0:0045872 1
                    positive regulation of rhodopsin gene expression
G0:0035803 1
                    egg coat formation
G0:0072273 1
G0:0072274 1
                    metanephric nephron morphogenesis
                    metanephric glomerular basement membrane development
G0:0072275
                    metanephric glomerulus morphogenesis
           1
G0:0043090
           1
1
                    amino acid import
G0:0043091
                    L-arginine import
G0:1900210
                    positive regulation of cardiolipin metabolic process
           1
                    regulation of vascular endothelial growth factor signaling pathway
GO: 1900746
G0:0035714
            1
                    cellular response to nitrogen dioxide
                    T-helper 2 cell activation
G0:0035712
G0:0035713
            1
                    response to nitrogen dioxide
           1
G0:0035710
                    CD4-positive, alpha-beta T cell activation
G0:0030322 1
                    stabilization of membrane potential
G0:0035751
                    regulation of lysosomal lumen pH
           1
1
G0:0060598
                    dichotomous subdivision of terminal units involved in mammary gland duct
morphogenesis
G0:0060599 1
G0:0046380 1
                    lateral sprouting involved in mammary gland duct morphogenesis
G0:0046380
                    N-acetylneuraminate biosynthetic process
G0:0097026
                    dendritic cell dendrite assembly
                    lymphocyte migration into lymph node
           1
G0:0097022
G0:0060620
            1
                    regulation of cholesterol import
                    regulation of chromosome condensation
GO:0060623
G0:0001226
           1
                    RNA polymerase II transcription corepressor binding
G0:0001221
                    transcription cofactor binding
G0:0001223
                    transcription coactivator binding
GO:0005020
                    stem cell factor receptor activity
            1
G0:0030497
            1
                    fatty acid elongation
G0:0002037
                    negative regulation of L-glutamate transport
G0:0002036
                    regulation of L-glutamate transport
            1
G0:0002030
            1
                    inhibitory G-protein coupled receptor phosphorylation
                    vasodilation by angiotensin involved in regulation of systemic arterial
G0:0002033 1
blood pressure
G0:0044388 1
                    small protein activating enzyme binding
G0:0032392
                    DNA geometric change
           1
GO: 0008995
                    ribonuclease E activity
G0:0032394
            1
                    MHC class Ib receptor activity
                    biotin-[methylcrotonoyl-CoA-carboxylase] ligase activity
G0:0004078
G0:0015676
            1
                    vanadium ion transport
G0:0098629
            1
                    trans-Golgi network membrane organization
G0:0031773
                    kisspeptin receptor binding
GO:0036090
                    cleavage furrow ingression
            1
G0:0008192
            1
                    RNA guanylyltransferase activity
G0:0008193
                    tRNA guanylyltransferase activity
G0:0004883
                    glucocorticoid receptor activity
            1
                    2-hydroxyacylsphingosine 1-beta-galactosyltransferase activity
G0:0003851
            1
G0:0070646
                    protein modification by small protein removal
                    biotin-[propionyl-CoA-carboxylase (ATP-hydrolyzing)] ligase activity
GO:0004080
            1
                    bis(5'-nucleosyl)-tetraphosphatase (asymmetrical) activity
G0:0004081
            1
G0:0004087 1
                    carbamoyl-phosphate synthase (ammonia) activity
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G0:0004085 1
G0:0004088 1
                    butyryl-CoA dehydrogenase activity
                    carbamoyl-phosphate synthase (glutamine-hydrolyzing) activity
G0:0016248 1
                    channel inhibitor activity
G0:2000486
           1
                   negative regulation of glutamine transport
G0:0016530
            1
                    metallochaperone activity
GO:0040031
                    snRNA modification
G0:0040034
                    regulation of development, heterochronic
            1
G0:0034466
            1
                    chromaffin granule lumen
                   negative regulation of nucleotide-binding oligomerization domain
G0:0070429
           1
containing 1 signaling pathway
G0:0032738 1
                   positive regulation of interleukin-15 production
                   positive regulation of interleukin-1 alpha production
G0:0032730 1
G0:0032732
           1
1
                    positive regulation of interleukin-1 production
G0:2000269
                    regulation of fibroblast apoptotic process
                   regulation of blood coagulation, intrinsic pathway
G0:2000266
           1
G0:2000261
                    negative regulation of blood coagulation, common pathway
G0:0015149
            1
                    hexose transmembrane transporter activity
                    blood vessel endothelial cell differentiation
G0:0060837
           1
G0:0015141
                    succinate transmembrane transporter activity
            1
G0:0050061
            1
                    long-chain-aldehyde dehydrogenase activity
G0:0050113
                    inositol oxygenase activity
G0:0015142
                    tricarboxylic acid transmembrane transporter activity
            1
G0:0050115
            1
                    myosin-light-chain-phosphatase activity
                   manganese-transporting ATPase activity
G0:0015410
           1
G0:0010816
            1
                   calcitonin catabolic process
G0:1901979
            1
                    regulation of inward rectifier potassium channel activity
                    positive regulation of cell cycle checkpoint
G0:1901978
GO: 1901976
                    regulation of cell cycle checkpoint
G0:0042483
            1
                   negative regulation of odontogenesis
                   glyoxylate reductase (NADP) activity
G0:0030267
           1
G0:0051996
           1
1
                   squalene synthase activity
G0:1901605
                    alpha-amino acid metabolic process
                   3alpha,7alpha,12alpha-trihydroxy-5beta-cholest-24-enoyl-CoA hydratase
G0:0033989 1
activity
G0:0035039
                    male pronucleus assembly
G0:0035037
                   sperm entry
G0:0061502
                    early endosome to recycling endosome transport
            1
           1
G0:0030003
                    cellular cation homeostasis
G0:0061055
                   myotome development
GO:0035175
                   histone kinase activity (H3-S10 specific)
            1
G0:0060454
            1
                   positive regulation of gastric acid secretion
G0:0060453
                   regulation of gastric acid secretion
G0:0060450
                   positive regulation of hindgut contraction
            1
G0:0003681
            1
                    bent DNA binding
                   CD8-positive, alpha-beta T cell lineage commitment
G0:0043375
G0:0060459
            1
                    left lung development
G0:0060458
            1
                    right lung development
G0:0072237
                    metanephric proximal tubule development
                   isoleucine catabolic process
G0:0006550
G0:0004506
                    squalene monooxygenase activity
G0:0004504
                    peptidylglycine monooxygenase activity
G0:0004503
            1
                    monophenol monooxygenase activity
G0:0004502
            1
                    kynurenine 3-monooxygenase activity
G0:0004500
                    dopamine beta-monooxygenase activity
G0:0004509
                   steroid 21-monooxygenase activity
            1
G0:2000791 1
                   negative regulation of mesenchymal cell proliferation involved in lung
development
G0:0006014
                   D-ribose metabolic process
G0:1902118
                    calcidiol binding
G0:0030110
                   HLA-C specific inhibitory MHC class I receptor activity
           1
                   vesicle targeting, to, from or within Golgi
GO:0048199
G0:0048668
            1
                    collateral sprouting
                   negative regulation of neuron maturation
G0:0014043
           1
G0:0042779
                   tRNA 3'-trailer cleavage
G0:0042772
            1
                   DNA damage response, signal transduction resulting in transcription
G0:0072101 1
                   specification of ureteric bud anterior/posterior symmetry by BMP signaling
pathway
G0:0072105
                   ureteric peristalsis
G0:0003418
                   growth plate cartilage chondrocyte differentiation
G0:0002828
                    regulation of type 2 immune response
            1
G0:0007522
            1
                    visceral muscle development
G0:0007527
                   adult somatic muscle development
G0:0010635
                    regulation of mitochondrial fusion
            1
           1
G0:0033505
                    floor plate morphogenesis
G0:0036371 1
                   protein localization to T-tubule
```

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G0:0001596 1
                     angiotensin type I receptor activity
G0:0001595
            1
                     angiotensin receptor activity
G0:0031052
                     chromosome breakage
G0:0003999
                     adenine phosphoribosyltransferase activity
            1
G0:0047801
             1
                     L-cysteine:2-oxoglutarate aminotransferase activity
G0:0047800
                     cysteamine dioxygenase activity
                     determination of stomach left/right asymmetry determination of intestine left/right asymmetry
G0:0071909
            1
G0:0071908
            1
G0:2000016
            1
                     negative regulation of determination of dorsal identity
                     histone H3-T3 phosphorylation
G0:0072355
            1
G0:0032078
             1
                     negative regulation of endodeoxyribonuclease activity
                     Wnt receptor catabolic process
G0:0038018
            1
                     positive regulation of deoxyribonuclease activity negative regulation of nuclease activity
G0:0032077
G0:0032074
            1
                     positive regulation of nuclease activity
G0:0032075
            1
                     regulation of mesenchymal to epithelial transition involved in metanephros
G0:0003339
            1
morphogenesis
G0:0035863 1
                     dITP catabolic process
G0:0052629
            1
                     phosphatidylinositol-3,5-bisphosphate 3-phosphatase activity
G0:0035867
             1
                     alphav-beta3 integrin-IGF-1-IGF1R complex
G0:0000972 1
                     transcription-dependent tethering of RNA polymerase II gene DNA at nuclear
periphery
G0:0019242
                     methylglyoxal biosynthetic process
                     methylglyoxal catabolic process to D-lactate
G0:0019243
            1
GO:0016554
            1
                     cytidine to uridine editing
                     hormonal regulation of the force of heart contraction
G0:0003058
             1
                     mitochondrial light strand promoter anti-sense binding
G0:0070361
                     mitochondrial heavy strand promoter anti-sense binding mitochondrial heavy strand promoter sense binding
GO:0070362
            1
G0:0070364
            1
                     negative regulation of hepatocyte differentiation
G0:0070367
            1
G0:0042282
            1
                     hydroxymethylglutaryl-CoA reductase activity
G0:0047676
            1
                     arachidonate-CoA ligase activity
G0:0033291
                     eukaryotic 80S initiation complex
G0:0019866
                     organelle inner membrane
            1
G0:0035730
             1
                     S-nitrosoglutathione binding
                     dinitrosyl-iron complex binding
G0:0035731
                     nitric oxide storage
G0:0035732
G0:0060025
            1
                     regulation of synaptic activity
                     detection of chemical stimulus involved in sensory perception
G0:0050907
                     response to lipoprotein particle
GO: 0055094
            1
G0:0034545
             1
                     fumarylpyruvate hydrolase activity
GO:0009229
                     thiamine diphosphate biosynthetic process
                     positive regulation of metanephric cap mesenchymal cell proliferation
GO:0090096
            1
G0:0009225
            1
                     nucleotide-sugar metabolic process
G0:0006463
                     steroid hormone receptor complex assembly
G0:0010387
            1
                     COP9 signalosome assembly
G0:0001532
                     interleukin-21 receptor activity
G0:0046100
                     hypoxanthine metabolic process
G0:0048857
                     neural nucleus development
            1
G0:0048850
                     hypophysis morphogenesis
G0:0009593
                     detection of chemical stimulus
                     detection of gravity
GO:0009590
            1
                     maintenance of blood-brain barrier
G0:0035633
            1
G0:0030748
                     amine N-methyltransferase activity
G0:1902499
                     positive regulation of protein autoubiquitination
            1
G0:1902498
             1
                     regulation of protein autoubiquitination
G0:0042643
                     actomyosin, actin portion
GO:0000150
                     recombinase activity
            1
G0:0000153
            1
                     cytoplasmic ubiquitin ligase complex
G0:0004312
                     fatty acid synthase activity
                     [acyl-carrier-protein] S-acetyltransferase activity
GO:0004313
            1
G0:0004310
             1
                     farnesyl-diphosphate farnesyltransferase activity
                     3-oxoacyl-[acyl-carrier-protein] reductase (NADPH) activity
G0:0004316
                     3-hydroxypalmitoyl-[acyl-carrier-protein] dehydratase activity enoyl-[acyl-carrier-protein] reductase (NADPH, B-specific) activity
G0:0004317
             1
G0:0004319
             1
                     mandelate metabolic process
beta-carotene 15,15'-monooxygenase activity
G0:0018924
G0:0003834
            1
G0:0003830 1
                     beta-1,4-mannosylglycoprotein 4-beta-N-acetylglucosaminyltransferase
activity
G0:0006808
                     regulation of nitrogen utilization
            1
G0:0019521
             1
                     D-gluconate metabolic process
G0:0070626 1
                     (S)-2-(5-amino-1-(5-phospho-D-ribosyl)imidazole-4-carboxamido)succinate
AMP-lyase (fumarate-forming) activity
G0:0070990
                     snRNP binding
            1
G0:2000464 1
                     positive regulation of astrocyte chemotaxis
```

```
G0:2000465 1
G0:0070963 1
                    regulation of glycogen (starch) synthase activity
                    positive regulation of neutrophil mediated killing of gram-negative
bacterium
G0:0070195
                    growth hormone receptor complex
            1
G0:0070194
            1
                    synaptonemal complex disassembly
                    methionine-R-sulfoxide reductase activity
G0:0070191
G0:0032244
                    positive regulation of nucleoside transport
G0:0033595
            1
                    response to genistein
                    sour taste receptor activity
G0:0033040
            1
G0:2000209
                    regulation of anoikis
            1
G0:1900535
                    palmitic acid biosynthetic process
G0:0003867
                    4-aminobutyrate transaminase activity
G0:0060816
                    random inactivation of X chromosome
G0:0015166
            1
                    polyol transmembrane transporter activity
                    pyrimidine nucleotide-sugar transmembrane transporter activity
G0:0015165
G0:0071575
                    integral component of external side of plasma membrane
G0:0071578
            1
                    zinc ion transmembrane import
                    natural killer cell proliferation
GO:0001787
GO:0016121
                    carotene catabolic process
            1
G0:0046469
            1
                    platelet activating factor metabolic process
                    vacuolar transport
G0:0007034
G0:0007039
                    vacuolar protein catabolic process
            1
G0:0015132
            1
                    prostaglandin transmembrane transporter activity
                    sodium-independent icosanoid transport
G0:0071718
            1
G0:0051058
            1
                    negative regulation of small GTPase mediated signal transduction
G0:0071544
            1
                    diphosphoinositol polyphosphate catabolic process
G0:1901627
                    negative regulation of postsynaptic membrane organization
                    cellular response to ergosterol
GO: 1901625
            1
                    negative regulation of lymphocyte chemotaxis
G0:1901624
            1
                    protein C inhibitor-coagulation factor XI complex
G0:0097183
            1
                    protein C inhibitor-coagulation factor Xa complex protein C inhibitor-coagulation factor V complex
G0:0097182
            1
G0:0097181
            1
G0:0035509
                    negative regulation of myosin-light-chain-phosphatase activity
GO:0035505
                    positive regulation of myosin light chain kinase activity
            1
G0:0036352
            1
                    histone H2A-K15 ubiquitination
G0:0035501
                    MH1 domain binding
                    MH2 domain binding
GO:0035500
            1
G0:0061526
            1
                    acetylcholine secretion
                    positive regulation of somatostatin secretion
GO:0090274
                    N-terminal myristoylation domain binding
GO:0031997
            1
G0:0031998
            1
                    regulation of fatty acid beta-oxidation
                    messenger ribonucleoprotein complex
G0:1990124
G0:0006256
            1
                    UDP catabolic process
G0:0006258
            1
                    UDP-glucose catabolic process
G0:0042131
                    thiamine phosphate phosphatase activity
G0:0006789
                    bilirubin conjugation
            1
G0:0042564
            1
                    NLS-dependent protein nuclear import complex
G0:0006781
                    succinyl-CoA pathway
                    uroporphyrinogen III biosynthetic process
G0:0006780
            1
G0:0003947
                    (N-acetylneuraminyl)-galactosylglucosylceramide N-
acetylgalactosaminyltransferase activity
G0:0000097 1
G0:0004782 1
                    sulfur amino acid biosynthetic process
                    sulfinoalanine decarboxylase activity
G0:0072124 1
                    regulation of glomerular mesangial cell proliferation
           1
G0:0010248
                    establishment or maintenance of transmembrane electrochemical gradient
G0:1902824
            1
                    positive regulation of late endosome to lysosome transport
                    positive regulation of fibroblast growth factor production
G0:0090271
GO:0006121
                    mitochondrial electron transport, succinate to ubiquinone
            1
G0:0005252
            1
                    open rectifier potassium channel activity
G0:0005527
                    macrolide binding
GO:0004123
                    cystathionine gamma-lyase activity
            1
G0:0004122
            1
                    cystathionine beta-synthase activity
                    negative regulation of intracellular signal transduction
G0:1902532
                    muscle cell apoptotic process positive regulation of protein linear polyubiquitination
G0:0010657
            1
G0:1902530
            1
G0:0009789
            1
                    positive regulation of abscisic acid-activated signaling pathway
G0:0010650
            1
                    positive regulation of cell communication by electrical coupling
                    negative regulation of cell communication by electrical coupling
GO:0010651
            1
G0:0046901
                    tetrahydrofolylpolyglutamate biosynthetic process
GO:0036351
                    histone H2A-K13 ubiquitination
            1
G0:0001575
            1
                    globoside metabolic process
G0:0046904
                    calcium oxalate binding
G0:0046906
            1
                    tetrapyrrole binding
                    establishment or maintenance of cell polarity regulating cell shape
G0:0071963
            1
G0:0036053 1
                    glomerular endothelium fenestra
```

```
G0:0008783 1
G0:0008785 1
                    agmatinase activity alkyl hydroperoxide reductase activity
G0:0043997
                    histone acetyltransferase activity (H4-K12 specific)
           1
                    fertilization, exchange of chromosomal proteins non-canonical Wnt signaling pathway via MAPK cascade
G0:0035042
G0:0038030
            1
                    muramyl dipeptide binding
G0:0032500
                    G-protein coupled receptor homodimeric complex
G0:0038038
G0:0033037
            1
                    polysaccharide localization
G0:0052600
            1
                    propane-1,3-diamine oxidase activity
G0:0035886
                    vascular smooth muscle cell differentiation
            1
G0:0004876
            1
                    complement component C3a receptor activity
                    oxidoreductase activity, acting on paired donors, with oxidation of a pair
G0:0016717
           1
of donors resulting in the reduction of molecular oxygen to two molecules of water
G0:0016716 1
                    oxidoreductase activity, acting on paired donors, with incorporation or
reduction of molecular oxygen, another compound as one donor, and incorporation of one atom of
oxygen
G0:0016711
                    flavonoid 3'-monooxygenase activity
G0:0000957 1
                    mitochondrial RNA catabolic process
           1
G0:0000958
                    mitochondrial mRNA catabolic process
G0:0071389
            1
                    cellular response to mineralocorticoid stimulus
                    cellular response to dithiothreitol
G0:0072721
G0:0043509
                    activin A complex
            1
G0:0043501
            1
                    skeletal muscle adaptation
G0:0045769
            1
                    negative regulation of asymmetric cell division
                    negative regulation of ERBB signaling pathway
GO: 1901185
            1
G0:0034590
            1
                    L-hydroxyproline transmembrane transporter activity
                    phosphatidylinositol phosphate 5-phosphatase activity
G0:0034595
                    positive regulation of fructose 1,6-bisphosphate metabolic process
GO:0060552
GO:0060001
            1
                    minus-end directed microfilament motor activity
                    positive regulation of fructose 1,6-bisphosphate 1-phosphatase activity
G0:0060550
            1
G0:0060004
                    reflex
GO:0060558
            1
                    regulation of calcidiol 1-monooxygenase activity
G0:0032773
                    positive regulation of monophenol monooxygenase activity
GO:0034047
                    regulation of protein phosphatase type 2A activity
            1
G0:0034041
                    sterol-transporting ATPase activity
G0:0034040
                    lipid-transporting ATPase activity
G0:0050923
                    regulation of negative chemotaxis
            1
G0:0050928
            1
                    negative regulation of positive chemotaxis
                    negative regulation of protein phosphatase type 2A activity
G0:0034048
                    low-density lipoprotein particle receptor catabolic process
G0:0032802
            1
G0:0045830
            1
                    positive regulation of isotype switching
                    deoxyribonucleoside triphosphate catabolic process
GO:0009204
GO:0009200
                    deoxyribonucleoside triphosphate metabolic process
G0:0046122
            1
                    purine deoxyribonucleoside metabolic process
G0:0046121
                    deoxyribonucleoside catabolic process
G0:0048532
            1
                    anatomical structure arrangement
G0:0047298
                    (S)-3-amino-2-methylpropionate transaminase activity
G0:2001311
                    lysobisphosphatidic acid metabolic process
G0:0035312
                    5'-3' exodeoxyribonuclease activity
G0:0065005
                    protein-lipid complex assembly
G0:0052381
                    tRNA dimethylallyltransferase activity
G0:0048250
                    mitochondrial iron ion transport
            1
G0:0048259
                    regulation of receptor-mediated endocytosis
G0:0000133
                    polarisome
G0:0045160
                    myosin I complex
            1
                    hydrogen sulfide metabolic process
G0:0070813
            1
G0:0070815
                    peptidyl-lysine 5-dioxygenase activity
G0:0004334
                    fumarylacetoacetase activity
            1
G0:0004336
            1
                    galactosylceramidase activity
G0:0004333
                    fumarate hydratase activity
G0:0009346
                    citrate lyase complex
            1
G0:0004339
            1
                    glucan 1,4-alpha-glucosidase activity
                    negative regulation of acetylcholine secretion, neurotransmission
G0:0014058
G0:0009712
                    catechol-containing compound metabolic process
            1
G0:0006863
            1
                    purine nucleobase transport
G0:0006860
                    extracellular amino acid transport
G0:0045221
                    negative regulation of FasL biosynthetic process
            1
G0:0070976
            1
                    TIR domain binding
G0:0042924
                    neuromedin U binding
                    neuromedin U receptor binding regulation of female gonad development
G0:0042922
            1
G0:2000194
            1
G0:2000191
                    regulation of fatty acid transport
G0:0015913
                    short-chain fatty acid import
            1
GO:0061000
            1
                    negative regulation of dendritic spine development
G0:0032263 1
                    GMP salvage
```

```
G0:0032261 1
G0:0015361 1
                    purine nucleotide salvage
                    low affinity sodium:dicarboxylate symporter activity
G0:0015362 1
                    high affinity sodium:dicarboxylate symporter activity
G0:0015367
            1
                    oxoglutarate:malate antiporter activity
G0:0021902
            1
                    commitment of neuronal cell to specific neuron type in forebrain
G0:0061599
                    molybdopterin molybdotransferase activity
           1
G0:0021905
                    forebrain-midbrain boundary formation
G0:0004476
            1
                    mannose-6-phosphate isomerase activity
G0:0051545
            1
                    negative regulation of elastin biosynthetic process
G0:0051541
            1
                    elastin metabolic process
G0:0051542
                    elastin biosynthetic process
G0:0015105
                    arsenite transmembrane transporter activity
            1
G0:0010464
                    regulation of mesenchymal cell proliferation
G0:0048284
                    organelle fusion
GO:0019101
                    female somatic sex determination
G0:0019103
                    pyrimidine nucleotide binding
G0:0019107
            1
                    myristoyltransferase activity
G0:0005889
                    hydrogen:potassium-exchanging ATPase complex
           1
G0:0021509
                    roof plate formation
G0:0032994
            1
                    protein-lipid complex
G0:0032990 1
                    cell part morphogenesis
G0:0002014 1
                    vasoconstriction of artery involved in ischemic response to lowering of
systemic arterial blood pressure
G0:0033028 1
                    myeloid cell apoptotic process
           1
G0:0033025
                    regulation of mast cell apoptotic process
G0:2000224
            1
                    regulation of testosterone biosynthetic process
G0:2000225 1
                    negative regulation of testosterone biosynthetic process
GO:2000227
                    negative regulation of pancreatic A cell differentiation
            1
G0:0051041
            1
                    positive regulation of calcium-independent cell-cell adhesion
                    ITP binding
G0:1901641
            1
                    response to prostaglandin F response to luteinizing hormone
G0:0034696
           1
1
G0:0034699
G0:0008747
                    N-acetylneuraminate lyase activity
G0:0030594
            1
                    neurotransmitter receptor activity
G0:0061011
            1
                    hepatic duct development
                    snRNA import into nucleus
G0:0061015
G0:0042320
           1
1
                    regulation of circadian sleep/wake cycle, REM sleep
G0:0015055
                    secretin receptor activity
G0:0015054 1
                   gastrin receptor activity
G0:0000305 1
G0:0000301 1
                    response to oxygen radical
                    retrograde transport, vesicle recycling within Golgi
G0:2001034 1
                    positive regulation of double-strand break repair via nonhomologous end
joining
GO:1900117
                    regulation of execution phase of apoptosis
G0:1903135 1
                    cupric ion binding
           1
                    cuprous ion binding
G0:1903136
G0:0031315
                    extrinsic component of mitochondrial outer membrane
G0:0072143
                    mesangial cell development
G0:2000386
                    positive regulation of ovarian follicle development
G0:0010266
                    response to vitamin B1
G0:0010265
                    SCF complex assembly
G0:0097309
            1
                    cap1 mRNA methylation
           1
GO:0002190
                    cap-independent translational initiation
G0:0097305
                    response to alcohol
G0:0002194
                    hepatocyte cell migration
            1
G0:0061597
            1
                    cyclic pyranopterin monophosphate synthase activity
                    negative regulation of cell proliferation involved in kidney development
G0:1901723
G0:0005503
                    all-trans retinal binding
            1
           1
G0:0004102
                    choline O-acetyltransferase activity
                    regulation of nerve growth factor receptor activity
G0:0051394
           1
G0:0004108
                    citrate (Si)-synthase activity
G0:2001108
            1
                    positive regulation of Rho guanyl-nucleotide exchange factor activity
                    cellular response to tumor cell
G0:0071228 1
G0:0046921
                    alpha-(1->6)-fucosyltransferase activity
            1
G0:1902511
            1
                    negative regulation of apoptotic DNA fragmentation
G0:0036337
                    Fas signaling pathway
G0:0043265
            1
                    ectoplasm
G0:0071947 1
                    protein deubiquitination involved in ubiquitin-dependent protein catabolic
process
G0:2000057
                    negative regulation of Wnt signaling pathway involved in digestive tract
morphogenesis
G0:2000055 1
                    positive regulation of Wnt signaling pathway involved in dorsal/ventral
axis specification
G0:2000052 1
                    positive regulation of non-canonical Wnt signaling pathway
G0:2000058 1
                    regulation of protein ubiquitination involved in ubiquitin-dependent
```

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protein catabolic process
G0:0021985 1
                    neurohypophysis development
G0:0007136 1
                    meiotic prophase II
G0:0032528 1
G0:0008455 1
                    microvillus organization
                    alpha-1,6-mannosylglycoprotein 2-beta-N-acetylglucosaminyltransferase
activity
G0:0003374
            1
1
                    dynamin polymerization involved in mitochondrial fission
G0:0008456
                    alpha-N-acetylgalactosaminidase activity
G0:0008452
                    RNA ligase activity
                    carnitine O-octanoyltransferase activity
G0:0008458
            1
G0:0070012
            1
                    oligopeptidase activity
G0:0047323 1
                    [3-methyl-2-oxobutanoate dehydrogenase (acetyl-transferring)] kinase
activity
G0:0042134
                    rRNA primary transcript binding
                    inositol tetrakisphosphate 1-kinase activity
G0:0047325
G0:1901895
                    negative regulation of calcium-transporting ATPase activity
G0:1901896
            1
                    positive regulation of calcium-transporting ATPase activity
                    involuntary skeletal muscle contraction
GO:0003011
G0:0016598
                    protein arginylation
            1
G0:0072703
            1
                    cellular response to methyl methanesulfonate
                    ACF complex
G0:0016590
G0:0016596
                    thienylcyclohexylpiperidine binding
            1
G0:0021590
            1
                    cerebellum maturation
G0:0021599
            1
                    abducens nerve formation
                    negative regulation of phospholipase C activity
GO: 1900275
            1
                    intrinsic component of mitochondrial inner membrane
G0:0031304
            1
                    immunoglobulin production in mucosal tissue
G0:0002426
G0:0031306
                    intrinsic component of mitochondrial outer membrane
G0:0032581
            1
                    ER-dependent peroxisome organization
G0:0044783
                    G1 DNA damage checkpoint
            1
G0:0015919
                    peroxisomal membrane transport
           1
G0:0015917
                    aminophospholipid transport
G0:0015910
                    peroxisomal long-chain fatty acid import
                    glycerol biosynthetic process from pyruvate regulation of myeloid leukocyte differentiation
GO:0046327
            1
G0:0002761
G0:0002763
                    positive regulation of myeloid leukocyte differentiation
G0:0002764
                    immune response-regulating signaling pathway
            1
           1
G0:0002769
                    natural killer cell inhibitory signaling pathway
G0:0042696
                    menarche
G0:0006426
                    glycyl-tRNA aminoacylation
            1
G0:0006425
            1
                    glutaminyl-tRNA aminoacylation
                    aspartyl-tRNA aminoacylation
GO:0006422
G0:0034342
                    response to type III interferon
           1
G0:0046148
                    pigment biosynthetic process
                    memory T cell proliferation
G0:0061485
G0:0035332
            1
                    positive regulation of hippo signaling
G0:0052816
            1
                    long-chain acyl-CoA hydrolase activity
G0:0060689
                    cell differentiation involved in salivary gland development
G0:0060683
            1
                    regulation of branching involved in salivary gland morphogenesis by
epithelial-mesenchymal signaling
G0:0060681 1
                    branch elongation involved in ureteric bud branching
G0:0052814
           1
1
                    medium-chain-aldehyde dehydrogenase activity
                    calcium-transporting ATPase activity involved in regulation of cardiac
G0:0086039
muscle cell membrane potential
G0:0048237
                    rough endoplasmic reticulum lumen
            1
G0:0048232
                    male gamete generation
G0:0000110
                    nucleotide-excision repair factor 1 complex
                    negative regulation of DNA recombination at telomere single-stranded DNA 5'-3' exodeoxyribonuclease activity
G0:0048239
            1
G0:0045145
            1
G0:0070839
            1
                    divalent metal ion export
                    chromium ion transmembrane transporter activity
GO:0070835
            1
G0:0042492
            1
                    gamma-delta T cell differentiation
                    nephron tubule development
G0:0072080
G0:0006842
                    tricarboxylic acid transport
            1
G0:0006844
            1
                    acyl carnitine transport
G0:0045203
                    integral component of cell outer membrane
                    MAPK phosphatase export from nucleus, leptomycin B sensitive
G0:0045209
            1
G0:0070489
            1
                    T cell aggregation
G0:0022004
                    midbrain-hindbrain boundary maturation during brain development
                    nuclear-transcribed mRNA catabolic process, non-stop decay
G0:0070481
            1
                    sinoatrial node cell development
G0:0060931
            1
G0:0036055
                    protein-succinyllysine desuccinylase activity
                    canalicular bile acid transmembrane transporter activity
G0:0015126
            1
GO:0001681
                    sialate 0-acetylesterase activity
G0:0015874 1
                    norepinephrine transport
```

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G0:2000426 1
G0:2000425 1
                    negative regulation of apoptotic cell clearance
                     regulation of apoptotic cell clearance
                     negative regulation of eosinophil extravasation
G0:2000420 1
            1
G0:0070228
                     regulation of lymphocyte apoptotic process
G0:0015876
            1
                     acetyl-CoA transport
G0:0070224
                     sulfide:quinone oxidoreductase activity
G0:0015870
                    acetylcholine transport
G0:0007072
            1
                     positive regulation of transcription on exit from mitosis
G0:0071283
                    cellular response to iron(III) ion
G0:0019408
            1
                    dolichol biosynthetic process
G0:1901407
            1
                     regulation of phosphorylation of RNA polymerase II C-terminal domain
                     response to vitamin B3
G0:0033552
            1
G0:0042497
                     triacyl lipopeptide binding
G0:0035921
                     desmosome disassembly
G0:0035927
                     RNA import into mitochondrion
G0:0035926
                    chemokine (C-C motif) ligand 2 secretion
G0:0030209
            1
                     dermatan sulfate catabolic process
                    glutamate-5-semialdehyde dehydrogenase activity
GO:0004350
G0:1901668
                     regulation of superoxide dismutase activity
            1
GO:1901666
             1
                     positive regulation of NAD+ ADP-ribosyltransferase activity
G0:1901660
                    calcium ion export
                    regulation of embryonic cell shape
GO:0016476
            1
G0:0050677
            1
                     positive regulation of urothelial cell proliferation
                    1-alkenylglycerophosphocholine 0-acyltransferase activity
G0:0047159
            1
G0:0005590
            1
                    collagen type VII trimer
G0:0072573
            1
                     tolerance induction to lipopolysaccharide
G0:0072572
                    poly-ADP-D-ribose binding
            1
G0:0072574
                    hepatocyte proliferation
G0:0005597
            1
                     collagen type XVI trimer
G0:0000323
                     lytic vacuole
            1
           1
G0:0005596
                    collagen type XIV trimer
                    \label{eq:continuous} \textbf{negative regulation of memory T cell differentiation}
G0:0043381
            1
G0:0002489 1
                    antigen processing and presentation of endogenous peptide antigen via MHC
class Ib via ER pathway, TAP-dependent
G0:0071839 1
                    apoptotic process in bone marrow
                    negative regulation of phospholipase A2 activity 3-demethylubiquinone-9 3-0-methyltransferase activity
G0:1900138 1
G0:0008689 1
G0:1900134 1
                    negative regulation of renin secretion into blood stream
GO:1900131 1
                    negative regulation of lipid binding
                    regulation of vesicle fusion
GO:0031338
            1
G0:0060746
            1
                     parental behavior
                     hemangioblast cell differentiation
G0:0060217
G0:0072168
            1
1
                    specification of anterior mesonephric tubule identity
G0:0001187
                    RNA polymerase I CORE element sequence-specific DNA binding transcription
factor recruiting transcription factor activity
G0:0097326 1
G0:0048934 1
                    melanocyte adhesion
                    peripheral nervous system neuron differentiation
G0:0009438 1
                    methylglyoxal metabolic process
G0:2001113 1
                    negative regulation of cellular response to hepatocyte growth factor
stimulus
G0:2001294 1
                     malonyl-CoA catabolic process
G0:0048685 1
                    negative regulation of collateral sprouting of intact axon in response to
injury
G0:0005290 1
                     L-histidine transmembrane transporter activity
G0:0048683
                     regulation of collateral sprouting of intact axon in response to injury
            1
G0:0005298
             1
                     proline:sodium symporter activity
G0:0004164
                     diphthine synthase activity
G0:0004168
                     dolichol kinase activity
            1
                    regulation of cyclic nucleotide-gated ion channel activity
G0:1902159
            1
G0:0090149
                     membrane fission involved in mitochondrial fission
            1
                    tyrosyl-RNA phosphodiesterase activity
GO:0036317
            1
G0:0046947
            1
                     hydroxylysine biosynthetic process
G0:0046940
                     nucleoside monophosphate phosphorylation
G0:0046942
                     carboxylic acid transport
            1
G0:0050144
            1
                     nucleoside deoxyribosyltransferase activity
G0:0055073
            1
                     cadmium ion homeostasis
                    ER-nucleus signaling pathway
G0:0006984
            1
G0:0030047
            1
                    actin modification
G0:0030046
                    parallel actin filament bundle assembly
                    noradrenergic neuron fate commitment regulation of cilium beat frequency
G0:0003359
            1
G0:0003356
             1
G0:0000915
                     actomyosin contractile ring assembly
G0:0045414
                     regulation of interleukin-8 biosynthetic process
            1
                     negative regulation of chronic inflammatory response to antigenic stimulus
G0:0002875
            1
G0:0070037 1
                     rRNA (pseudouridine) methyltransferase activity
```

```
G0:0047305 1
G0:1901879 1
                    (R)-3-amino-2-methylpropionate-pyruvate transaminase activity
                    regulation of protein depolymerization
                    ARF protein signal transduction
G0:0032011
G0:0032542
                    sulfiredoxin activity
            1
G0:0034263
            1
                    autophagy in response to ER overload
                    spermidine binding
G0:0019809
G0:0019807
                    aspartoacylase activity
G0:0030817
            1
                    regulation of cAMP biosynthetic process
G0:0015660
            1
                    formate efflux transmembrane transporter activity
                    regulation of NLRP3 inflammasome complex assembly
GO:1900225
            1
G0:0016312
            1
                    inositol bisphosphate phosphatase activity
G0:0051610
            1
                    serotonin uptake
G0:0051615
                    histamine uptake
G0:0033275
                    actin-myosin filament sliding
                    positive regulation of phospholipid biosynthetic process negative regulation of phospholipid biosynthetic process
G0:0071073
G0:0071072
G0:0046167
            1
                    glycerol-3-phosphate biosynthetic process
G0:0046166
                    glyceraldehyde-3-phosphate biosynthetic process
G0:0046164
                    alcohol catabolic process
            1
G0:0030412
            1
                    formimidoyltetrahydrofolate cyclodeaminase activity
                    G-protein coupled receptor catabolic process
G0:1990172
G0:0035684
                    helper T cell extravasation
            1
G0:0060516
            1
                    primary prostatic bud elongation
                    epithelial cell proliferation involved in prostatic bud elongation
G0:0060517
            1
G0:0044232
            1
                    organelle membrane contact site
G0:0035350
            1
                    FAD transmembrane transport
                    molybdopterin-synthase adenylyltransferase activity
G0:0061605
GO:0061604
                    molybdopterin-synthase sulfurtransferase activity
            1
                    negative regulation of tyrosine phosphorylation of Stat1 protein
G0:0042512
            1
G0:0042516
                    regulation of tyrosine phosphorylation of Stat3 protein
            1
G0:0006409
                    tRNA export from nucleus
            1
G0:0052830
            1
                    inositol-1,3,4,6-tetrakisphosphate 6-phosphatase activity
G0:0052831
                    inositol-1,3,4,6-tetrakisphosphate 1-phosphatase activity
GO:0003430
                    growth plate cartilage chondrocyte growth
            1
G0:0006404
            1
                    RNA import into nucleus
G0:0006157
                    deoxyadenosine catabolic process
G0:0048749
                    compound eye development
            1
G0:0008112
            1
                    nicotinamide N-methyltransferase activity
                    peptide-methionine (S)-S-oxide reductase activity
G0:0008113
G0:0018478
                    malonate-semialdehyde dehydrogenase (acetylating) activity
            1
G0:0008116
            1
                    prostaglandin-I synthase activity
                    sphinganine-1-phosphate aldolase activity
G0:0008117
G0:0005175
                    CD27 receptor binding
           1
G0:1990422
                    glyoxalase (glycolic acid-forming) activity
                    glycerone kinase activity
G0:0004371
G0:0004807
            1
                    triose-phosphate isomerase activity
                    GDP-Man:Man1GlcNAc2-PP-Dol alpha-1,3-mannosyltransferase activity
G0:0004378
            1
G0:0004809
                    tRNA (guanine-N2-)-methyltransferase activity
                    positive regulation of bile acid biosynthetic process regulation of cell cycle G2/M phase transition
G0:0070859
            1
G0:1902749
G0:1902961
                    positive regulation of aspartic-type endopeptidase activity involved in
amyloid precursor protein catabolic process
G0:1902960 1
                    negative regulation of aspartic-type endopeptidase activity involved in
amyloid precursor protein catabolic process
G0:0008802 1
G0:0008803 1
                    betaine-aldehyde dehydrogenase activity
                    bis(5'-nucleosyl)-tetraphosphatase (symmetrical) activity
G0:0016938
                    kinesin I complex
G0:0090168
            1
                    Golgi reassembly
                    positive regulation of heterochromatin assembly
G0:0031453
            1
G0:0048371
                    lateral mesodermal cell differentiation
GO:0014835
                    myoblast differentiation involved in skeletal muscle regeneration
            1
G0:0032430
            1
                    positive regulation of phospholipase A2 activity
G0:0007440
                    foregut morphogenesis
G0:0044214
                    fully spanning plasma membrane cationic amino acid transmembrane transporter activity
            1
G0:0015326
            1
G0:0015320
                    phosphate ion carrier activity
G0:0018455
                    alcohol dehydrogenase [NAD(P)+] activity
            1
GO:0001716
                    L-amino-acid oxidase activity
G0:0014810
                    positive regulation of skeletal muscle contraction by regulation of
           1
release of sequestered calcium ion
G0:0014812 1
                    muscle cell migration
G0:0014813 1
                    skeletal muscle satellite cell commitment
           1
1
GO:0051580
                    regulation of neurotransmitter uptake
                    negative regulation of dopamine uptake involved in synaptic transmission
G0:0051585
G0:0051589 1
                    negative regulation of neurotransmitter transport
```

```
G0:0015495 1
G0:0050197 1
                    gamma-aminobutyric acid:proton symporter activity
                    phytanate-CoA ligase activity
G0:1990441 1
                    negative regulation of transcription from RNA polymerase II promoter in
response to endoplasmic reticulum stress
G0:0015499
            1
                    formate transmembrane transporter activity
                    peroxisome membrane class-1 targeting sequence binding
G0:0036105
G0:2000402
           1
1
                    negative regulation of lymphocyte migration
G0:2000151
                    negative regulation of planar cell polarity pathway involved in cardiac
muscle tissue morphogenesis
G0:2000156 1
                    regulation of retrograde vesicle-mediated transport, Golgi to ER
G0:2000157
                    negative regulation of ubiquitin-specific protease activity
                    calcium ion-transporting ATPase complex
G0:0090534
           1
           1
                    aminobutyraldehyde dehydrogenase activity inhibitory extracellular ligand-gated ion channel activity
G0:0019145
G0:0005237
            1
G0:0032957
                    inositol trisphosphate metabolic process
GO:0007057
                    spindle assembly involved in female meiosis I
G0:0050178
            1
                    phenylpyruvate tautomerase activity
                    dorsal aorta development
G0:0035907
GO:0035904
                    aorta development
            1
G0:0035112
            1
                    genitalia morphogenesis
                    positive regulation of myeloid dendritic cell activation
GO:0030887
            1
1
G0:0030883
                    endogenous lipid antigen binding
G0:0030882
                    lipid antigen binding
G0:0000036 1
                    ACP phosphopantetheine attachment site binding involved in fatty acid
biosynthetic process
G0:0070001 1
                    aspartic-type peptidase activity
G0:1901684 1
                    arsenate ion transmembrane transport
                    regulation of RNA stability
ATP-dependent 5'-3' DNA/RNA helicase activity
G0:0043487
            1
           1
G0:0033682
G0:0016410
            1
                    N-acyltransferase activity
                    negative regulation of T-helper cell differentiation positive regulation of T-helper cell differentiation
G0:0045623
            1
           1
G0:0045624
G0:0047173
                    phosphatidylcholine-retinol O-acyltransferase activity
GO:0006233
                    dTDP biosynthetic process
            1
G0:0004729
            1
                    oxygen-dependent protoporphyrinogen oxidase activity
G0:1900483
                    regulation of protein targeting to vacuolar membrane
G0:0004724
                    magnesium-dependent protein serine/threonine phosphatase activity
            1
G0:0042599
            1
                    lamellar body
G0:1900155
                    negative regulation of bone trabecula formation
G0:1900158
                    negative regulation of bone mineralization involved in bone maturation
            1
G0:1900159
            1
                    positive regulation of bone mineralization involved in bone maturation
                    G-protein gamma-subunit binding
G0:0031682
                    Al adenosine receptor binding
G0:0031686
            1
                    negative regulation of intracellular protein transport
G0:0090317
            1
                    positive regulation of fractalkine biosynthetic process
G0:0050754
G0:0005767
            1
                    secondary lysosome
                    GABA-gated chloride ion channel activity
G0:0022851
G0:0097343
                    ripoptosome assembly
                    phosphatidylinositol-3,4-bisphosphate 3-phosphatase activity
G0:0051800
            1
G0:0004494
                    methylmalonyl-CoA mutase activity
G0:0004496
                    mevalonate kinase activity
GO:0004491
                    methylmalonate-semialdehyde dehydrogenase (acylating) activity
            1
GO:0004490
            1
                    methylglutaconyl-CoA hydratase activity
G0:0007618
                    mating
G0:0004492
                    methylmalonyl-CoA decarboxylase activity
            1
GO:0004498
            1
                    calcidiol 1-monooxygenase activity
                    positive regulation of sphingomyelin catabolic process
G0:2000755
G0:1902081
                    negative regulation of calcium ion import into sarcoplasmic reticulum
            1
           1
G0:0030620
                    U2 snRNA binding
G0:1902559
                    3'-phospho-5'-adenylyl sulfate transmembrane transport
G0:1902227
                    negative regulation of macrophage colony-stimulating factor signaling
           1
pathway
G0:0046964 1
                    3'-phosphoadenosine 5'-phosphosulfate transmembrane transporter activity
                    3'-phosphoadenosine 5'-phosphosulfate transport
G0:0046963
            1
G0:0001512
            1
                    dihydronicotinamide riboside quinone reductase activity
G0:0004835
                    tubulin-tyrosine ligase activity
G0:0036047
                    peptidyl-lysine demalonylation
            1
           1
                    antigen processing and presentation of peptide antigen
G0:0048002
G0:0036414
                    histone citrullination
G0:0048006 1
                    antigen processing and presentation, endogenous lipid antigen via MHC
class Ib
G0:0000701
                    purine-specific mismatch base pair DNA N-glycosylase activity
G0:0000703
                    oxidized pyrimidine nucleobase lesion DNA N-glycosylase activity
            1
G0:0004639
            1
                    phosphoribosylaminoimidazolesuccinocarboxamide synthase activity
G0:0004638 1
                    phosphoribosylaminoimidazole carboxylase activity
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G0:0004149 1
G0:0004148 1
                    dihydrolipoyllysine-residue succinyltransferase activity
                    dihydrolipoyl dehydrogenase activity
G0:0004631
                    phosphomevalonate kinase activity
G0:0004633
            1
                    phosphopantothenoylcysteine decarboxylase activity
G0:0004637
            1
                    phosphoribosylamine-glycine ligase activity
G0:0033557
                    Slx1-Slx4 complex
G0:0008495
                    protoheme IX farnesyltransferase activity
G0:0060980
            1
                    cell migration involved in coronary vasculogenesis
                    negative regulation of death-inducing signaling complex assembly
G0:1903073
GO:0001971
                    negative regulation of activation of membrane attack complex
            1
G0:0070055
                    HAC1-type intron splice site recognition and cleavage
G0:0060987
            1
                    lipid tube
G0:2000368
                    positive regulation of acrosomal vesicle exocytosis negative regulation of cellular respiration
GO:1901856
            1
                    positive regulation of prostaglandin-E synthase activity
G0:2000363
G0:0051248
                    negative regulation of protein metabolic process
G0:0051249
            1
                    regulation of lymphocyte activation
G0:0072061
                    inner medullary collecting duct development
GO:0032561
                    guanyl ribonucleotide binding
            1
G0:0050038
            1
                    L-xylulose reductase (NADP+) activity
                    regulation of cell morphogenesis involved in differentiation
G0:0010769
G0:0032567
                    dGTP binding
            1
            1
G0:0010760
                    negative regulation of macrophage chemotaxis
                    regulation of transcription from RNA polymerase II promoter in response to
G0:0010767
            1
UV-induced DNA damage
G0:0034243 1
                    regulation of transcription elongation from RNA polymerase II promoter
                    histone demethylase activity (H3-R2 specific)
G0:0033746 1
G0:0033961
           1
1
                    cis-stilbene-oxide hydrolase activity
G0:0034240
                    negative regulation of macrophage fusion
                    histone demethylase activity (H4-R3 specific)
G0:0033749 1
G0:0021771
            1
1
                    lateral geniculate nucleus development
G0:0021779
                    oligodendrocyte cell fate commitment
G0:0002460 1
                    adaptive immune response based on somatic recombination of immune
receptors built from immunoglobulin superfamily domains
G0:0015684 1
                    ferrous iron transport
G0:0047369 1
                    succinate-hydroxymethylglutarate CoA-transferase activity
G0:0071893 1
G0:0071894 1
                    BMP signaling pathway involved in nephric duct formation histone H2B conserved C-terminal lysine ubiquitination
                    establishment or maintenance of polarity of embryonic epithelium
G0:0016332 1
            1
                    GDP-L-fucose metabolic process
GO: 0046368
                    actin filament network formation
G0:0051639
            1
                    positive regulation of natural killer cell cytokine production
G0:0002729
                    regulation of B cell cytokine production
G0:0002721
           1
G0:0038184
                    cell surface bile acid receptor signaling pathway
                    intracellular bile acid receptor signaling pathway
G0:0038185
G0:0038186
            1
                    lithocholic acid receptor activity
G0:0038182
            1
                    G-protein coupled bile acid receptor activity
G0:0038183
                    bile acid signaling pathway
                    insulin metabolic process
G0:1901142
G0:1901143
                    insulin catabolic process
G0:0042356
                    GDP-4-dehydro-D-rhamnose reductase activity
G0:0048520
                    positive regulation of behavior
            1
G0:0043299
            1
                    leukocyte degranulation
G0:0060534
                    trachea cartilage development
G0:0060537
                    muscle tissue development
            1
                    termination of mitochondrial transcription
G0:0006393
            1
                    carbon dioxide transmembrane transport
G0:0035378
G0:0035379
                    carbon dioxide transmembrane transporter activity
            1
            1
G0:0035373
                    chondroitin sulfate proteoglycan binding
                    zymogen binding
G0:0035375
                    transepithelial water transport
GO:0035377
            1
                    S-methylmethionine-homocysteine S-methyltransferase activity
G0:0061627
            1
G0:0061626
                    pharyngeal arch artery morphogenesis
G0:0042534
                    regulation of tumor necrosis factor biosynthetic process
            1
G0:0009841
            1
                    mitochondrial endopeptidase Clp complex
G0:0044726
                    protection of DNA demethylation of female pronucleus
G0:0006178
                    guanine salvage
            1
                    dADP biosynthetic process
G0:0006173
            1
G0:0005157
                    macrophage colony-stimulating factor receptor binding
G0:0045185
                    maintenance of protein location
            1
G0:0045183
            1
                    translation factor activity, non-nucleic acid binding
G0:0032344
                    regulation of aldosterone metabolic process
                    arginine biosynthetic process via ornithine
G0:0042450
            1
G0:0047977
            1
                    hepoxilin-epoxide hydrolase activity
G0:0045189 1
                    connective tissue growth factor biosynthetic process
```

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G0:0004824
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1
                    lysine-tRNA ligase activity
G0:0004820
                    glycine-tRNA ligase activity
                    regulation of SMAD protein import into nucleus
G0:0060390
           1
G0:1902943
                    positive regulation of voltage-gated chloride channel activity
            1
G0:1902947
            1
                    regulation of tau-protein kinase activity
                    protein localization to early endosome
G0:1902946
G0:1902949
                    positive regulation of tau-protein kinase activity
G0:1902948
            1
                    negative regulation of tau-protein kinase activity
G0:0042988
            1
                    X11-like protein binding
G0:0042984
                    regulation of amyloid precursor protein biosynthetic process
            1
G0:0046909
                    intermembrane transport
                    regulation of high-density lipoprotein particle assembly
G0:0090107
GO:0090101
                    negative regulation of transmembrane receptor protein serine/threonine
kinase signaling pathway
G0:0090108
                    positive regulation of high-density lipoprotein particle assembly
                    RNA transmembrane transporter activity
G0:0051033
G0:0051036
            1
                    regulation of endosome size
G0:0051039
                    positive regulation of transcription during meiosis
           1
                    fucokinase activity
GO:0050201
            1
G0:0036292
            1
                    DNA rewinding
GO:0060896
                    neural plate pattern specification
G0:0010481
                    epidermal cell division
            1
G0:0001704
            1
                    formation of primary germ layer
                    regulation of glucagon secretion
G0:0070092
            1
G0:2000176
            1
                    positive regulation of pro-T cell differentiation
G0:2000172
            1
                    regulation of branching morphogenesis of a nerve
                    necrotic cell death
G0:0070265
                    glucagon secretion
GO:0070091
G0:0070260
            1
                    5'-tyrosyl-DNA phosphodiesterase activity
G0:0070262
                    peptidyl-serine dephosphorylation
            1
G0:0032972
            1
                    regulation of muscle filament sliding speed
           1
G0:0070268
                    cornification
GO:0006660
                    phosphatidylserine catabolic process
G0:0070094
                    positive regulation of glucagon secretion
            1
G0:1901339
            1
                    regulation of store-operated calcium channel activity
                    positive regulation of myotome development
G0:2000287
G0:0033514
            1
                    L-lysine catabolic process to acetyl-CoA via L-pipecolate
G0:0008531
            1
                    riboflavin kinase activity
                    cellular response to topologically incorrect protein
G0:0035967
GO:0006214
                    thymidine catabolic process
            1
                    chemokine receptor transport out of membrane raft
G0:0032600
            1
G0:0032607
                    interferon-alpha production
G0:0043311
                    positive regulation of eosinophil degranulation
            1
           1
G0:0043310
                    negative regulation of eosinophil degranulation
                    proton-transporting ATP synthase complex assembly
G0:0043461
                    mitochondrial tRNA 3'-trailer cleavage, endonucleolytic
G0:0072684
            1
G0:0072687
            1
                    meiotic spindle
G0:0045601
                    regulation of endothelial cell differentiation
                    regulation of auditory receptor cell differentiation dicarboxylic acid transmembrane transporter activity
G0:0045607
            1
GO:0005310
G0:0045609
                    positive regulation of auditory receptor cell differentiation
                    positive regulation of eye pigmentation alpha9-beta1 integrin-ADAM8 complex
G0:0048075
            1
G0:0071133
            1
G0:0047117
                    enoyl-[acyl-carrier-protein] reductase (NADPH, A-specific) activity
G0:0000823
                    inositol-1,4,5-trisphosphate 6-kinase activity
            1
G0:0005316
            1
                    high affinity inorganic phosphate:sodium symporter activity
G0:0071418 1
                    cellular response to amine stimulus
G0:0000435 1
                    positive regulation of transcription from RNA polymerase II promoter by
galactose
G0:0031118
                    rRNA pseudouridine synthesis
           1
G0:0034766
                    negative regulation of ion transmembrane transport
                    positive regulation of ion transmembrane transport
G0:0034767
            1
                    negative regulation of transmembrane transport
G0:0034763
            1
G0:0097102
                    endothelial tip cell fate specification
            1
G0:0097101
            1
                    blood vessel endothelial cell fate specification
G0:0097100
            1
                    supercoiled DNA binding
                    regulation of nodal signaling pathway involved in determination of lateral
G0:1900175
            1
mesoderm left/right asymmetry
G0:0035581 1
                    sequestering of extracellular ligand from receptor
                    negative regulation of catagen
G0:0051796
            1
                    short-chain fatty acid biosynthetic process
G0:0051790
            1
G0:0051793
            1
                    medium-chain fatty acid catabolic process
GO:0060709
                    glycogen cell differentiation involved in embryonic placenta development
            1
GO:0010972
            1
                    negative regulation of G2/M transition of mitotic cell cycle
G0:0010970 1
                    microtubule-based transport
```

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G0:0046645 1
G0:0097369 1
                    positive regulation of gamma-delta T cell activation
                    sodium ion import
                    establishment of Sertoli cell barrier
G0:0097368 1
           1
                    positive regulation of N-terminal peptidyl-lysine acetylation
G0:2000761
G0:0097362
            1
                    MCM8-MCM9 complex
G0:0051866
                    general adaptation syndrome
G0:0051867
           1
1
                    general adaptation syndrome, behavioral process
G0:0090071
                    negative regulation of ribosome biogenesis
G0:0007634
                    optokinetic behavior
                    SRP-dependent cotranslational protein targeting to membrane, signal
G0:0006617
           1
sequence recognition
G0:0006616 1
                   SRP-dependent cotranslational protein targeting to membrane, translocation
G0:0036468
           1
1
                    L-dopa decarboxylase activity
G0:1902204
                    positive regulation of hepatocyte growth factor receptor signaling pathway
                    intermediate mesodermal cell differentiation
G0:0048392 1
G0:0047016
                    cholest-5-ene-3-beta,7-alpha-diol 3-beta-dehydrogenase activity
            1
           1
G0:0045048
                    protein insertion into ER membrane
G0:0045041
                    protein import into mitochondrial intermembrane space
                    DNA-7-methylguanine glycosylase activity
GO:0043916
            1
                    induction by virus of host cell-cell fusion
G0:0006948
            1
                    recombinational repair
G0:0000725
G0:0004610
           1
                    phosphoacetylglucosamine mutase activity
G0:0004617
            1
                    phosphoglycerate dehydrogenase activity
G0:0018171
           1
                    peptidyl-cysteine oxidation
G0:0060562
            1
                    epithelial tube morphogenesis
                    vacuolar proton-transporting V-type ATPase complex assembly
G0:0070072
            1
                    histone lysine demethylation
G0:0070076
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1
GO:0006175
                    dATP biosynthetic process
G0:0070078
                    histone H3-R2 demethylation
                    histone H4-R3 demethylation
G0:0070079
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G0:0034971
            1
                    histone H3-R17 methylation
           1
G0:1900133
                    regulation of renin secretion into blood stream
                    positive regulation of chemokine (C-X-C motif) ligand 1 production
G0:2000340
G0:2000615
                    regulation of histone H3-K9 acetylation
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                    positive regulation of histone H3-K9 acetylation
G0:2000617
            1
G0:0021572
                    rhombomere 6 development
                   regulation of CD40 signaling pathway mono-olein transacylation activity
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1
G0:2000348
G0:0051264
G0:0051265
                    diolein transacylation activity
G0:0051267
                    CP2 mannose-ethanolamine phosphotransferase activity
            1
G0:0042214
            1
                    terpene metabolic process
                    positive regulation of plasma membrane long-chain fatty acid transport
G0:0010747
G0:2000584
                    negative regulation of platelet-derived growth factor receptor-alpha
            1
signaling pathway
G0:0021758 1
                    putamen development
           1
                    caudate nucleus development
G0:0021757
G0:0002448
            1
                    mast cell mediated immunity
G0:0002443
                    leukocyte mediated immunity
G0:0060847
                    endothelial cell fate specification
           1
G0:0071301
                    cellular response to vitamin B1
G0:0060212
                    negative regulation of nuclear-transcribed mRNA poly(A) tail shortening
G0:0046341
            1
                    CDP-diacylglycerol metabolic process
           1
G0:0046439
                    L-cysteine metabolic process
G0:0080146
                    L-cysteine desulfhydrase activity
                    specification of posterior mesonephric tubule identity
GO:0072169
            1
                    establishment of organelle localization
G0:0051656
            1
                    maintenance of location in cell
G0:0051651
G0:0034516
                    response to vitamin B6
            1
G0:1990134
            1
                    epithelial cell apoptotic process involved in palatal shelf morphogenesis
G0:1990136
                    linoleate 9S-lipoxygenase activity
G0:0001189
                    RNA polymerase I transcriptional preinitiation complex assembly at the
            1
promoter for the nuclear large rRNA transcript
G0:0048560 1
                    establishment of anatomical structure orientation
G0:0035397
                    helper T cell enhancement of adaptive immune response
            1
G0:0017005
                    3'-tyrosyl-DNA phosphodiesterase activity
G0:0033233 1
                    regulation of protein sumoylation
G0:0086023
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1
                    adrenergic receptor signaling pathway involved in heart process
G0:0052872
                    tocotrienol omega-hydroxylase activity
G0:0086024 1
                    adrenergic receptor signaling pathway involved in positive regulation of
heart rate
                    pteridine-containing compound metabolic process
G0:0042558
G0:0042559
                    pteridine-containing compound biosynthetic process
GO:0006117
                    acetaldehyde metabolic process
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                    interleukin-4 receptor binding
G0:0005136
G0:0005139 1
                    interleukin-7 receptor binding
```

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G0:0070892 1
G0:0047915 1
                                           lipoteichoic acid receptor activity
                                           ganglioside galactosyltransferase activity
G0:0042431
                                           indole metabolic process
                                           regulation of mitochondrial DNA replication
G0:0090296
                         1
G0:0090297
                          1
                                           positive regulation of mitochondrial DNA replication
                                           N-acetylgalactosamine 4-sulfate 6-0-sulfotransferase activity
G0:0050659
G0:0039702
                                           viral budding via host ESCRT complex
G0:0090298
                          1
                                           negative regulation of mitochondrial DNA replication
G0:0050655
                                           dermatan sulfate proteoglycan metabolic process
G0:2000313
                                           regulation of fibroblast growth factor receptor signaling pathway involved
                          1
in neural plate anterior/posterior pattern formation
                                           regulation of synapse maturation
G0:0090128 1
G0:0008554
                                           sodium-exporting ATPase activity, phosphorylative mechanism
G0:0009399
                          1
                                           nitrogen fixation
                                           FMN biosynthetic process
G0:0009398 1
                                           negative regulation of transforming growth factor-beta secretion
G0:2001202
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G0:0008555
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                                           N-acetylglucosamine-1-phosphodiester alpha-N-acetylglucosaminidase
G0:0003944 1
activity
G0:0051012
                                           microtubule sliding
                                           cholesterol 7-alpha-monooxygenase activity
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G0:0010714
                                           negative regulation of collagen catabolic process
GO:0010711
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G0:0036146
                                           cellular response to mycotoxin
                         1
G0:0036143
                                           kringle domain binding
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                         1
G0:0036140
                                           peptidyl-asparagine 3-dioxygenase activity
G0:0036141
                                           L-phenylalanine-oxaloacetate transaminase activity
G0:0015052
                          1
                                           beta3-adrenergic receptor activity
G0:0032919
                          1
                                           spermine acetylation
G0:0032916
                                           positive regulation of transforming growth factor beta3 production
G0:0032913
                         1
1
                                           negative regulation of transforming growth factor beta3 production
G0:0004349
                                           glutamate 5-kinase activity
G0:0018585
                                           fluorene oxygenase activity
                         1
G0:0016638
                                           oxidoreductase activity, acting on the CH-NH2 group of donors % \left( 1\right) =\left( 1\right) \left( 1\right
G0:0008513
                          1
                                           secondary active organic cation transmembrane transporter activity
G0:0014858 1
                                           positive regulation of skeletal muscle cell proliferation
G0:0014853
                         1
                                           regulation of excitatory postsynaptic membrane potential involved in
skeletal muscle contraction
G0:0004347 1
                                           glucose-6-phosphate isomerase activity
G0:0014856 1
G0:0015728 1
                                           skeletal muscle cell proliferation
                                           mevalonate transport
G0:0032621 1
                                           interleukin-18 production
                        1
                                           interleukin-17 production
G0:0032620
G0:0047757
                                           chondroitin-glucuronate 5-epimerase activity
G0:0015724
                                           formate transport
G0:0047280
                                           nicotinamide phosphoribosyltransferase activity
                          1
                         1
G0:0047288
                                           monosialoganglioside sialyltransferase activity
G0:0016189
                                           synaptic vesicle to endosome fusion
                                           bis(5'-adenosyl)-triphosphatase activity
G0:0047710
                          1
G0:0002676
                           1
                                           regulation of chronic inflammatory response
                                           regulation of natural killer cell apoptotic process
G0:0070247
G0:0047134
                                           protein-disulfide reductase activity
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                          1
                                           histone biotinylation
G0:0072254
                                           metanephric glomerular mesangial cell differentiation
                                           saccharopine dehydrogenase (NAD+, L-glutamate-forming) activity saccharopine dehydrogenase (NADP+, L-lysine-forming) activity
G0:0047131
                          1
G0:0047130
                          1
                                           metanephric glomerular mesangial cell development
G0:0072255
G0:0034164
                                           negative regulation of toll-like receptor 9 signaling pathway
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G0:0070176
                          1
                                           DRM complex
G0:2000802
                                           positive regulation of endocardial cushion to mesenchymal transition
involved in heart valve formation
                                           interleukin-9 binding
G0:0019983
                          1
G0:0019982
                                           interleukin-7 binding
G0:0030845
                         1
1
                                           phospholipase C-inhibiting G-protein coupled receptor signaling pathway
G0:0030844
                                           positive regulation of intermediate filament depolymerization
G0:0050823 1
                                           peptide antigen stabilization
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1
G0:0034705
                                           potassium channel complex
G0:0034702
                                           ion channel complex
G0:0050827 1
                                           toxin receptor binding
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G0:0046080 1
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                    dUTP metabolic process
                    regulation of liquid surface tension
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                    adenine metabolic process
G0:0050221
                    prostaglandin-E2 9-reductase activity
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G0:0046086
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                    adenosine biosynthetic process
G0:0004163
                    diphosphomevalonate decarboxylase activity
GO:1900195
                    positive regulation of oocyte maturation
G0:0097165
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                    nuclear stress granule
G0:0097161
                    DH domain binding
G0:0097162
                    MADS box domain binding
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G0:0061090
            1
                    positive regulation of sequestering of zinc ion
                    sperm displacement
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            1
GO:0090350
                    negative regulation of cellular organofluorine metabolic process
G0:0006585
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                    dopamine biosynthetic process from tyrosine
G0:0097383
                    dIDP diphosphatase activity
                    Intermediate conductance calcium-activated potassium channel activity
G0:0022894
G0:0002114
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                    interleukin-33 receptor activity
G0:0071378
                    cellular response to growth hormone stimulus
GO:0009134
                    nucleoside diphosphate catabolic process
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                    fatty-acyl-CoA biosynthetic process
                    leukotriene A4 metabolic process
G0:1901751
                    regulation of Fas signaling pathway
GO: 1902044
            1
G0:1902045
            1
                    negative regulation of Fas signaling pathway
G0:0006639
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                    acylglycerol metabolic process
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                    flavin-linked sulfhydryl oxidase activity
G0:0036444
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                    calcium ion import into mitochondrion
G0:0005585
                    collagen type II trimer
GO:0005582
                    collagen type XV trimer
G0:0032408
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                    MutSbeta complex binding
                    carboxylic acid transmembrane transporter activity
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                    negative regulation of prostaglandin biosynthetic process negative regulation of CD8-positive, alpha-beta T cell activation
G0:0031393
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G0:2001186
            1
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GO:0060699
                    regulation of endoribonuclease activity
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            1
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                    negative regulation of polyamine transmembrane transport
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                    nucleocytoplasmic shuttling complex
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            1
                    extrathymic T cell selection
G0:0000296
                    spermine transport
G0:0045065
                    cytotoxic T cell differentiation
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                    ketohexokinase activity
GO:0004457
                    lactate dehydrogenase activity
G0:0004458
                    D-lactate dehydrogenase (cytochrome) activity
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                    UDP-glucuronate decarboxylase activity
                    positive regulation of ryanodine-sensitive calcium-release channel
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activity by adrenergic receptor signaling pathway involved in positive regulation of cardiac
muscle contraction
G0:0031531 1
                    thyrotropin-releasing hormone receptor binding
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G0:0004676 1
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                    3-phosphoinositide-dependent protein kinase activity
                    protein C-terminal S-isoprenylcysteine carboxyl O-methyltransferase
activity
G0:0004673
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                    protein histidine kinase activity
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                    threonine racemase activity
                    protein adenylylation
G0:0018117
G0:2000845
                    positive regulation of testosterone secretion
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G0:0034959
            1
                    endothelin maturation
G0:2000327 1
                    positive regulation of ligand-dependent nuclear receptor transcription
coactivator activity
G0:2000326 1
                    negative regulation of ligand-dependent nuclear receptor transcription
coactivator activity
G0:2000320 1
                    negative regulation of T-helper 17 cell differentiation
G0:0021511
                    spinal cord patterning
                    spinal cord anterior/posterior patterning
G0:0021512 1
G0:0060912
                    cardiac cell fate specification
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G0:0051204
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                    protein insertion into mitochondrial membrane
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                    protein localization to nuclear envelope
                    regulation of primitive erythrocyte differentiation regulation of ferrochelatase activity
GO:0010725
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G0:0010722
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G0:0010721
                    negative regulation of cell development
GO:0010729
                    positive regulation of hydrogen peroxide biosynthetic process
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                    aerobic electron transport chain
G0:0060690
                    epithelial cell differentiation involved in salivary gland development
G0:0002932
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                    tendon sheath development
GO:0007371
                    ventral midline determination
G0:0071329 1
                    cellular response to sucrose stimulus
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G0:0044708 1
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                    single-organism behavior
                    positive regulation of leukocyte mediated cytotoxicity
                    negative regulation of SREBP signaling pathway
G0:2000639 1
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G0:0001910
                    regulation of leukocyte mediated cytotoxicity
                    regulation of T cell mediated cytotoxicity
G0:0001914
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G0:0001918
                    farnesylated protein binding
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                    membrane disruption in other organism
G0:0030802
                    regulation of cyclic nucleotide biosynthetic process
G0:2000513
                    positive regulation of granzyme A production
G0:0035150
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                    regulation of tube size
G0:0035623
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                    renal glucose absorption
G0:0030472
                    mitotic spindle organization in nucleus
G0:0035621
                    ER to Golgi ceramide transport
G0:0035627
                    ceramide transport
G0:0035624
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                    receptor transactivation
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G0:0061400 1
response to calcium ion
G0:0003186 1
                   tricuspid valve morphogenesis
G0:0003185 1
G0:0060601 1
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                    lateral sprouting from an epithelium
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action potential
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                    ion binding
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process
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                    regulation of melanosome organization
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                    type 2 angiotensin receptor binding
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                    carnitine catabolic process
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                    L-glucuronate reductase activity
                    urothelial cell proliferation
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G0:0015881
                    creatine transport
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G0:0060138
                    fetal process involved in parturition
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                    receptor tyrosine kinase-like orphan receptor binding
G0:0002327
                    immature B cell differentiation
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                    adenine binding
G0:0001698
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GO:0001011
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factor activity
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G0:0008479
                    queuine tRNA-ribosyltransferase activity
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                    pyridoxal kinase activity
G0:0001743
                    optic placode formation
G0:2000137
                    negative regulation of cell proliferation involved in heart morphogenesis
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                    N-acetylgalactosamine-6-sulfatase activity
G0:0005221
                    intracellular cyclic nucleotide activated cation channel activity
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                    ceramide glucosyltransferase activity
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GO:0008470
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                    isovaleryl-CoA dehydrogenase activity
                    regulation of mismatch repair
G0:0032423
G0:0032425
                    positive regulation of mismatch repair
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G0:0032396
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                    inhibitory MHC class I receptor activity
G0:0032399
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                    HECT domain binding
G0:0032938
                    negative regulation of translation in response to oxidative stress
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G0:1901373
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                    lipid hydroperoxide transport
G0:0003213
                    cardiac right atrium morphogenesis
G0:0016618
                    hydroxypyruvate reductase activity
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G0:0000917
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G0:0008579
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G0:0019343
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G0:0019341
                    dibenzo-p-dioxin catabolic process
GO:0015707
                    nitrite transport
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G0:0015706
            1
                    nitrate transport
G0:0045932
                    negative regulation of muscle contraction
                    negative regulation of amniotic stem cell differentiation
G0:2000798
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G0:1990256
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                    negative regulation of epithelial cell proliferation involved in lung
```

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morphogenesis
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                    cell proliferation involved in heart valve development
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                    histamine-induced gastric acid secretion
G0:0052884
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                    positive regulation of eosinophil differentiation
G0:0045645 1
                    positive regulation of histone H4-K20 methylation
G0:0070512
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1
G0:0004731
                    purine-nucleoside phosphorylase activity
                    vestibulocochlear nerve formation
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G0:1900425
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                    negative regulation of defense response to bacterium
G0:0030865
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G0:1990259
                    histone-glutamine methyltransferase activity
G0:0034728
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                    nucleosome organization
G0:0050809
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                    diazepam binding
                    regulation of post-translational protein modification
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G0:0034722
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                    gamma-glutamyl-peptidase activity
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coupling
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                    Ser-tRNA(Ala) hydrolase activity
G0:0097350 1
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G0:0002154
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G0:0097140
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                    BIM-BCL-xl complex
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                    regulation of necrotic cell death
G0:0010934
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                    macrophage cytokine production
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G0:0010933 1
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                    positive regulation of mitotic centrosome separation
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                    regulation of centrosome cycle
                    positive regulation of centriole replication
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G0:0033823
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G0:2001213
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                    negative regulation of mononuclear cell proliferation
G0:0032945
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G0:1903190
                    glyoxal catabolic process
GO:1903197
                    positive regulation of L-dopa biosynthetic process
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G0:0036393
                    thiocyanate peroxidase activity
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                    TCR signalosome assembly
GO:0036398
                    TCR signalosome
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                    methionyl-tRNA formyltransferase activity
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                    creatine:sodium symporter activity
                    L-tyrosine transmembrane transporter activity
G0:0005302
G0:0008963
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                    phospho-N-acetylmuramoyl-pentapeptide-transferase activity
G0:0008746
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                    NAD(P)+ transhydrogenase activity
G0:0008967
                    phosphoglycolate phosphatase activity
                    riboflavin reductase (NADPH) activity
G0:0042602
G0:0004657
                    proline dehydrogenase activity
G0:0031515
                    tRNA (m1A) methyltransferase complex
G0:0004655
                    porphobilinogen synthase activity
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G0:0004654
                    polyribonucleotide nucleotidyltransferase activity
G0:0031510
                    SUMO activating enzyme complex
G0:0045660
                    positive regulation of neutrophil differentiation
G0:0045660 1
G0:0031700 1
                    adrenomedullin receptor binding
G0:0044356 1
                    clearance of foreign intracellular DNA by conversion of DNA cytidine to
uridine
                    BMP signaling pathway involved in ureter morphogenesis
G0:0061149
                    cerebellar granule cell precursor tangential migration
G0:0021935 1
                    immortalization of host cell by virus
GO:0019088
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G0:0021534
                    cell proliferation in hindbrain
G0:0021539
                    subthalamus development
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                    DNA modification
G0:0090416
                    nicotinate transporter activity
G0:0032097
                    positive regulation of response to food
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G0:0007231
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G0:0001682
                    tRNA 5'-leader removal
G0:0001680
                    tRNA 3'-terminal CCA addition
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                    antigen processing and presentation of endogenous antigen
G0:0019883
            1
G0:0019884
                    antigen processing and presentation of exogenous antigen
G0:0019888
                    protein phosphatase regulator activity
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G0:0070164
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                    negative regulation of adiponectin secretion
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                    antigen processing and presentation of endogenous peptide antigen via MHC
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class I via ER pathway, TAP-dependent
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G0:0044729
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                    protein import into peroxisome matrix, substrate release
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                    DNA demethylation of male pronucleus
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                    negative regulation of canonical Wnt signaling pathway involved in cardiac
muscle cell fate commitment
G0:1901740 1
G0:2000308 1
                    negative regulation of myoblast fusion
                    negative regulation of tumor necrosis factor (ligand) superfamily member
11 production
G0:2000655 1
                    negative regulation of cellular response to testosterone stimulus
G0:2000657
                    negative regulation of apolipoprotein binding
                    regulation of ceramide biosynthetic process
G0:2000303 1
G0:2000302 1
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                    C-C motif chemokine 21 receptor activity
                    gentamycin metabolic process transcription factor TFIIE complex
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                    methotrexate transport
G0:0033273
                    response to vitamin
GO:0043269
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                    regulation of ion transport
                    chemorepulsion of branchiomotor axon
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G0:0097476 1
                    spinal cord motor neuron migration
G0:0035604 1
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regulation of cell proliferation in bone marrow
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                    peptidyl-cysteine S-trans-nitrosylation
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                    regulation of type B pancreatic cell proliferation
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regulation of apoptotic process in bone marrow
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hemopoiesis
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G0:0018964
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                    regulation of female receptivity
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G0:0086065 1
G0:0086062 1
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involved in heart development
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G0:0031724 1
                    hemoglobin alpha binding
                    CXCR5 chemokine receptor binding
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G0:0060330
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1
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GO:0090251
                    protein localization involved in establishment of planar polarity
G0:0060481
                    lobar bronchus epithelium development
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G0:0060482
                    lobar bronchus development
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G0:0050613 1
                    delta14-sterol reductase activity
G0:0046293
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                    formaldehyde biosynthetic process
G0:0046295
                    glycolate biosynthetic process
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                    glycolate catabolic process
                    negative regulation of cellular process
GO:0048523
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G0:0050961
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                    detection of temperature stimulus involved in sensory perception
                    purine nucleoside transmembrane transporter activity
G0:0015211
G0:0060159
                    regulation of dopamine receptor signaling pathway
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G0:0002085
            1
                    inhibition of neuroepithelial cell differentiation
G0:0048297
                    negative regulation of isotype switching to IgA isotypes
G0:0005461
                    UDP-glucuronic acid transmembrane transporter activity
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G0:0048291
                    isotype switching to IgG isotypes
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                    L-methylmalonyl-CoA metabolic process
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                    glucose:sodium symporter activity
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                    glucagon receptor binding
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                    outer acrosomal membrane
            1
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                    isopentenyl diphosphate metabolic process
```

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                    muscle hypertrophy
G0:0014891
                    striated muscle atrophy
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                    establishment of protein localization to peroxisome
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                    maintenance of protein location in plasma membrane
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                    corticotropin-releasing hormone receptor activity
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                    substance K receptor activity
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                    C-X3-C chemokine receptor activity
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                    ferritin receptor activity
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                    metallodipeptidase activity
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                    regulation of viral transcription
                    negative regulation of T-helper 1 cell activation
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                    establishment of protein localization to endoplasmic reticulum
                    positive regulation of MyD88-dependent toll-like receptor signaling
pathway
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                    positive regulation of CD4-positive, alpha-beta T cell activation
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                    cerebellar molecular layer development
                    inositol hexakisphosphate 6-kinase activity
GO:0000831
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GO: 0002541
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                    positive regulation of cyclic nucleotide metabolic process
                    alkanesulfonate metabolic process
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G0:0050865
                    regulation of cell activation
                    regulation of B cell activation
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G0:0016230
                    sphingomyelin phosphodiesterase activator activity
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G0:2001145
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phosphatase activity
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                    ATP-dependent polyribonucleotide 5'-hydroxyl-kinase activity
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                    glycerol-3-phosphate catabolic process
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                    NF-kappaB complex
G0:2000753
                    positive regulation of glucosylceramide catabolic process
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                    linoleic acid binding
                    regulation of granulocyte chemotaxis
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G0:0001164
                    RNA polymerase I CORE element sequence-specific DNA binding
GO:0035299
                    inositol pentakisphosphate 2-kinase activity
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                    regulation of thyroid hormone mediated signaling pathway
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                    bile acid conjugation
GO:0002153
                    steroid receptor RNA activator RNA binding
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                    mitochondrial depolarization
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involved in heart development
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GO: 2001233
                    regulation of apoptotic signaling pathway
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                    lung ciliated cell differentiation
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                    Ran GTPase activator activity
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                    mitochondrial degradosome
                    hydroxymethylglutaryl-CoA lyase activity
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                    hydroxymethylbilane synthase activity
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                    dolichyldiphosphatase activity
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                    homogentisate 1,2-dioxygenase activity
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GO:0006677
                    glycosylceramide metabolic process
GO:0008941
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G0:0043973
                    histone H3-K4 acetylation
G0:0048087 1
                    positive regulation of developmental pigmentation
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G0:0001135 1
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activity
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                    UDP-sugar diphosphatase activity
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            1
                    cytoplasmic chromatin
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                    ATPase activity, uncoupled
                    maintenance of protein localization in endoplasmic reticulum
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                    specification of organ identity
                    S-formylglutathione hydrolase activity
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                    3,4-dihydrocoumarin hydrolase activity
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                    uncoating of virus
                    eosinophil migration
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                    mannose transmembrane transporter activity
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                    butyrate metabolic process
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                    single base insertion or deletion binding
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                    mitochondrial alanyl-tRNA aminoacylation
                    regulation of DNA endoreduplication
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                    regulation of histone deacetylase activity
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                    regulation of transcription regulatory region DNA binding
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                    camera-type eye photoreceptor cell fate commitment
G0:0015878
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                    choriogonadotropin hormone binding
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                    lipase activator activity
                    carbon catabolite regulation of transcription
G0:0045990
            1
G0:1901899
                    positive regulation of relaxation of cardiac muscle
                    regulation of lipoprotein metabolic process
GO:0050746
            1
G0:0034369
            1
                    plasma lipoprotein particle remodeling
G0:0045560
                    regulation of TRAIL receptor biosynthetic process
G0:0061444
                    endocardial cushion cell development
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G0:0042022
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                    interleukin-12 receptor complex
G0:0042023
                    DNA endoreduplication
G0:0072434
                    signal transduction involved in mitotic G2 DNA damage checkpoint
            1
G0:0072432
            1
                    response to G1 DNA damage checkpoint signaling
G0:0003144
                    embryonic heart tube formation
G0:0072431
                    signal transduction involved in mitotic G1 DNA damage checkpoint
            1
G0:0046456
            1
                    icosanoid biosynthetic process
G0:0046452
                    dihydrofolate metabolic process
G0:0043060
            1
                    meiotic metaphase I plate congression
G0:0060345
                    spleen trabecula formation
G0:0086042
                    cardiac muscle cell-cardiac muscle cell adhesion
                    membrane depolarization during Purkinje myocyte cell action potential inositol-3,4,6-trisphosphate 1-kinase activity
G0:0086047
            1
G0:0052835
G0:0097260
                    eoxin A4 synthase activity
G0:0035669
                    TRAM-dependent toll-like receptor 4 signaling pathway
            1
                    TIRAP-dependent toll-like receptor 4 signaling pathway
G0:0035665
            1
G0:0035663
                    Toll-like receptor 2 binding
                    mitochondrial proton-transporting ATP synthase, catalytic core
G0:0005754
            1
G0:0072047
            1
                    proximal/distal pattern formation involved in nephron development
G0:0060311
                    negative regulation of elastin catabolic process
G0:0090272
                    negative regulation of fibroblast growth factor production
G0:0090273
            1
                    regulation of somatostatin secretion
G0:0017061
                    S-methyl-5-thioadenosine phosphorylase activity
                    negative regulation of GTP cyclohydrolase I activity
GO:0043105
            1
G0:0017064
            1
                    fatty acid amide hydrolase activity
                    single-strand selective uracil DNA N-glycosylase activity
G0:0017065
G0:0051946
                    regulation of glutamate uptake involved in transmission of nerve impulse
            1
G0:0008111
                    alpha-methylacyl-CoA racemase activity
G0:0060175
                    brain-derived neurotrophic factor-activated receptor activity
G0:0060177
            1
                    regulation of angiotensin metabolic process
G0:0009645
            1
                    response to low light intensity stimulus
G0:0008115
                    sarcosine oxidase activity
                    age-dependent response to reactive oxygen species siRNA loading onto RISC involved in RNA interference
G0:0001315
            1
G0:0035087
            1
G0:0002367
                    cytokine production involved in immune response
G0:0009159
                    deoxyribonucleoside monophosphate catabolic process
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G0:0009154
            1
                    purine ribonucleotide catabolic process
G0:0009152 1
                    purine ribonucleotide biosynthetic process
```

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G0:0048211 1
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                   Golgi vesicle docking
                   Golgi vesicle fusion to target membrane
                   pyrimidine nucleobase transport
G0:0015855 1
G0:0045844
           1
                    positive regulation of striated muscle tissue development
GO:0000041
            1
                    transition metal ion transport
G0:0004750
                   ribulose-phosphate 3-epimerase activity
G0:0004751
                    ribose-5-phosphate isomerase activity
           1
G0:0004757
                    sepiapterin reductase activity
G0:0015295
           1
                    solute:proton symporter activity
G0:0052565
                    response to defense-related host nitric oxide production
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G0:0046715
            1
                    borate transmembrane transporter activity
G0:0003968
                   RNA-directed RNA polymerase activity
GO:0001010
                    sequence-specific DNA binding transcription factor recruiting
           1
transcription factor activity
G0:0003964 1
                   RNA-directed DNA polymerase activity
G0:0045352
                   interleukin-1 Type I receptor antagonist activity
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G0:0070773
                    protein-N-terminal glutamine amidohydrolase activity
                   negative regulation of interferon-beta biosynthetic process
G0:0045358 1
G0:0019477
           1
                   L-lysine catabolic process
G0:0070774
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                    phytoceramidase activity
                   positive regulation of intestinal epithelial structure maintenance
G0:0060731
G0:0048692
                   negative regulation of axon extension involved in regeneration
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G0:0072608
                   interleukin-10 secretion
G0:0071494
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                   cellular response to UV-C
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1
G0:0070702
                   inner mucus layer
G0:0072600
                    establishment of protein localization to Golgi
G0:0000433 1
                   negative regulation of transcription from RNA polymerase II promoter by
glucose
G0:0045687
                   positive regulation of glial cell differentiation
G0:0005924 1
                   cell-substrate adherens junction
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G0:0045685
                    regulation of glial cell differentiation
                   negative regulation of dendritic cell antigen processing and presentation
G0:0002605
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G0:0030283
                   testosterone dehydrogenase [NAD(P)] activity
G0:0070553
            1
                   nicotinic acid receptor activity
G0:0070551
            1
                    endoribonuclease activity, cleaving siRNA-paired mRNA
G0:0032468
                   Golgi calcium ion homeostasis
G0:0033484
                   nitric oxide homeostasis
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G0:2000536
                   negative regulation of entry of bacterium into host cell
G0:0097451
                    glial limiting end-foot
                   siderophore biosynthetic process
G0:0019290
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G0:0030827
            1
                    negative regulation of cGMP biosynthetic process
                    regulation of cGMP biosynthetic process
G0:0030826
G0:1902742
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                    apoptotic process involved in development
G0:0015742
            1
                   alpha-ketoglutarate transport
G0:0010517
                    regulation of phospholipase activity
G0:0006581
                   acetylcholine catabolic process
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G0:0051717
            1
                    inositol-1,3,4,5-tetrakisphosphate 3-phosphatase activity
G0:0048773
                   erythrophore differentiation
G0:0044557
                    relaxation of smooth muscle
                    eukaryotic initiation factor 4G binding
G0:0031370
G0:0071608
                    macrophage inflammatory protein-1 alpha production
                   chemokine (C-C motif) ligand 5 production
G0:0071609
            1
G0:0071602
            1
                    phytosphingosine biosynthetic process
G0:0005289
                   high affinity arginine transmembrane transporter activity
G0:0032536
            1
                    regulation of cell projection size
G0:1900281
            1
                    positive regulation of CD4-positive, alpha-beta T cell costimulation
G0:0035270
                   endocrine system development
G0:0035272
                   exocrine system development
            1
G0:0030354
            1
                    melanin-concentrating hormone activity
G0:0043754
                   dihydrolipoyllysine-residue (2-methylpropanoyl)transferase activity
           1
GO:0022865
            1
                   transmembrane electron transfer carrier
                   evasion or tolerance by virus of host immune response
G0:0030683
            1
                   presynaptic membrane organization
G0:0097090
G0:0030684
            1
                    preribosome
G0:0030171
            1
                    voltage-gated proton channel activity
G0:0061162
                   establishment of monopolar cell polarity
                   NADPH-adrenodoxin reductase activity
G0:0015039
            1
                   granulocyte macrophage colony-stimulating factor biosynthetic process
G0:0042253
            1
G0:0043028 1
                    cysteine-type endopeptidase regulator activity involved in apoptotic
process
G0:0060785
                    regulation of apoptosis involved in tissue homeostasis
G0:0060784
           1
                    regulation of cell proliferation involved in tissue homeostasis
G0:0060783 1
                   mesenchymal smoothened signaling pathway involved in prostate gland
development
G0:0060782 1
                    regulation of mesenchymal cell proliferation involved in prostate gland
```

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development
G0:0048313 1
                    Golgi inheritance
G0:0000235 1
                    astral microtubule
G0:0004921 1
G0:0031087 1
                    interleukin-11 receptor activity
                    deadenylation-independent decapping of nuclear-transcribed mRNA
                    prolactin receptor activity
G0:0004925 1
G0:0043969
           1
1
                    histone H2B acetylation
G0:0061078
                    positive regulation of prostaglandin secretion involved in immune response
                    large conductance calcium-activated potassium channel activity
G0:0060072
G0:2001253
                    regulation of histone H3-K36 trimethylation
            1
G0:2001250
            1
                    positive regulation of ammonia assimilation cycle
G0:0005347
                    ATP transmembrane transporter activity
G0:0005345
                    purine nucleobase transmembrane transporter activity
G0:0005343
                    organic acid:sodium symporter activity
                    glucosylceramidase activity
G0:0004348
                    FAD-AMP lyase (cyclizing) activity
G0:0034012
GO:0090044
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                    positive regulation of tubulin deacetylation
                    regulation of cell migration involved in sprouting angiogenesis
G0:0090049
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G0:0034130
                    toll-like receptor 1 signaling pathway
G0:0044316
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                    cone cell pedicle
                    protein K6-linked deubiquitination
G0:0044313 1
G0:0072078
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1
                    nephron tubule morphogenesis
G0:0090450
                    inosine-diphosphatase activity
                    protein C inhibitor-KLK3 complex
G0:0036029
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                    protein C inhibitor-thrombin complex
GO:0036028
                    coreceptor-mediated virion attachment to host cell
G0:0046814
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                    protein C inhibitor-TMPRSS11E complex
G0:0036025 1
                    protein C inhibitor-TMPRSS7 complex
G0:0036024
G0:0036027
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                    protein C inhibitor-PLAU complex
                    protein C inhibitor-PLAT complex
G0:0036026 1
G0:0018094
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1
                    protein polyglycylation
G0:0070126
                    mitochondrial translational termination
G0:0070127
                    tRNA aminoacylation for mitochondrial protein translation
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                    transforming growth factor beta receptor activity, type III
G0:0070123
G0:0070121
            1
                    Kupffer's vesicle development
G0:0032852
                    positive regulation of Ral GTPase activity
                    negative regulation of antigen processing and presentation negative regulation of lung goblet cell differentiation
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1
G0:0002578
G0:1901250
                    positive regulation of lung goblet cell differentiation
G0:1901251
GO: 1901255
                    nucleotide-excision repair involved in interstrand cross-link repair
            1
G0:1901258
            1
                    positive regulation of macrophage colony-stimulating factor production
G0:0008541
                    proteasome regulatory particle, lid subcomplex
                    3'-UTR-mediated mRNA destabilization
G0:0061158
G0:0072531
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                    pyrimidine-containing compound transmembrane transport
G0:0032144
                    4-aminobutyrate transaminase complex
G0:0016028
            1
                    rhabdomere
G0:0010509
                    polyamine homeostasis
GO:0016005
                    phospholipase A2 activator activity
G0:0015037
                    peptide disulfide oxidoreductase activity
G0:0042008
                    interleukin-18 receptor activity
G0:0032222
                    regulation of synaptic transmission, cholinergic
GO:0003167
                    atrioventricular bundle cell differentiation
            1
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G0:0003163
                    sinoatrial node development
G0:0003168
                    Purkinje myocyte differentiation
                    fructose transport
G0:0015755
            1
G0:0015327
                    cystine:glutamate antiporter activity
                    steroid dehydrogenase activity
G0:0016229
G0:0060491
                    regulation of cell projection assembly
            1
G0:0014719
            1
                    skeletal muscle satellite cell activation
G0:0034663
                    endoplasmic reticulum chaperone complex
GO:0033814
                    propanoyl-CoA C-acyltransferase activity
            1
GO:0006193
            1
                    ITP catabolic process
                    positive regulation of GTP catabolic process
G0:0033126
G0:0004158
                    dihydroorotate oxidase activity
            1
G0:0061441
            1
                    renal artery morphogenesis
G0:0050857
                    positive regulation of antigen receptor-mediated signaling pathway
G0:0035642
            1
                    histone methyltransferase activity (H3-R17 specific)
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G0:0035643
                    L-DOPA receptor activity
G0:0035644
                    phosphoanandamide dephosphorylation
G0:0035645
            1
                    enteric smooth muscle cell differentiation
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                    canonical Wnt signaling pathway involved in cardiac neural crest cell
G0:0061310
differentiation involved in heart development
G0:0046051 1
G0:0016222 1
                    UTP metabolic process
                    procollagen-proline 4-dioxygenase complex
G0:0031947 1
                    negative regulation of glucocorticoid biosynthetic process
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G0:0031946 1
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                    regulation of glucocorticoid biosynthetic process
                    negative regulation of mast cell differentiation
                    regulation of mast cell differentiation
G0:0060375
G0:0015822
                    ornithine transport
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G0:0015826
            1
                    threonine transport
G0:0015827
                    tryptophan transport
G0:0021658
                    rhombomere 3 morphogenesis
G0:0010855
            1
                    adenylate cyclase inhibitor activity
G0:0015828
                    tyrosine transport
G0:0046054
                    dGMP metabolic process
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G0:0060496
                    mesenchymal-epithelial cell signaling involved in lung development
G0:0001087
                    TFIIB-class binding transcription factor activity
G0:0004621
                    glycosylphosphatidylinositol phospholipase D activity
           ì
                    nitrogen catabolite activation of transcription from RNA polymerase II
G0:0001080
promoter
G0:0052927
                    CTP:tRNA cytidylyltransferase activity
                    dol-P-Man:Man(5)GlcNAc(2)-PP-Dol alpha-1,3-mannosyltransferase activity
G0:0052925
            1
G0:0052928
                    CTP:3'-cytidine-tRNA cytidylyltransferase activity
GO:0030548
                    acetylcholine receptor regulator activity
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G0:0030549
            1
                    acetylcholine receptor activator activity
G0:0048787
                    presynaptic active zone membrane
G0:1903038
                    negative regulation of leukocyte cell-cell adhesion
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G0:0047743
            1
                    chlordecone reductase activity
G0:0003142
                    cardiogenic plate morphogenesis
G0:1902616
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                    acyl carnitine transmembrane transport
G0:2001065
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                    mannan binding
G0:0036233
                    glycine import
                    glycogen binding
GO:2001069
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G0:0004598
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                    peptidylamidoglycolate lyase activity
                    cell wall chitin metabolic process
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                    orotidine-5'-phosphate decarboxylase activity
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G0:0004591
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                    oxoglutarate dehydrogenase (succinyl-transferring) activity
G0:0004595
                    pantetheine-phosphate adenylyltransferase activity
G0:0004597
            1
                    peptide-aspartate beta-dioxygenase activity
G0:0043843
            1
                    ADP-specific glucokinase activity
G0:0008049
                    male courtship behavior
                    strictosidine synthase activity carbon-sulfur lyase activity
G0:0016844
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G0:0016846
            1
                    ammonia-lyase activity
G0:0016841
GO:0000066
                    mitochondrial ornithine transport
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G0:0070899
            1
                    mitochondrial tRNA wobble uridine modification
G0:0004777
                    succinate-semialdehyde dehydrogenase (NAD+) activity
G0:0004773
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                    steryl-sulfatase activity
G0:0052547
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                    regulation of peptidase activity
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                    poly-glutamine tract binding
G0:0003905
                    alkylbase DNA N-glycosylase activity
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G0:0008262
            1
                    importin-alpha export receptor activity
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                    Ras palmitoyltransferase activity
G0:0060367
                    sagittal suture morphogenesis
                    methylated-DNA-[protein]-cysteine S-methyltransferase activity
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G0:0015491
                    cation:cation antiporter activity
GO:0070715
                    sodium-dependent organic cation transport
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G0:0034899
            1
                    trimethylamine monooxygenase activity
G0:0071140
                    resolution of mitotic recombination intermediates
                    negative regulation of glial cell-derived neurotrophic factor receptor
GO:2000734
signaling pathway involved in ureteric bud formation
G0:2000739 1
                    regulation of mesenchymal stem cell differentiation
G0:2000080
                    negative regulation of canonical Wnt signaling pathway involved in
            1
controlling type B pancreatic cell proliferation
                    positive regulation of canonical Wnt signaling pathway involved in
G0:2000081 1
controlling type B pancreatic cell proliferation G0:0000453 1 enzyme-directed rRNA 2'-0-methylation
G0:0051365 1
                    cellular response to potassium ion starvation
G0:0071548
                    response to dexamethasone
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                    UDP-glucuronate 5'-epimerase activity
G0:0050379
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G0:0032440
            1
                    2-alkenal reductase [NAD(P)] activity
                    regulation of T cell migration
G0:2000404
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GO:0008039
            1
                    synaptic target recognition
G0:0032448
                    DNA hairpin binding
                    negative regulation of sarcomere organization U6 snRNA 3'-end processing
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G0:0034477
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G0:0035852
                    horizontal cell localization
                    polysaccharide assembly with MHC class II protein complex
GO:0002506
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                    peptide antigen assembly with MHC class I protein complex
GO:0002502
            1
G0:0002508 1
                    central tolerance induction
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G0:0071422 1
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                    succinate transmembrane transport
                    positive regulation of histone H3-K14 acetylation
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                    hypochlorous acid biosynthetic process
G0:0015019
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                    heparan-alpha-glucosaminide N-acetyltransferase activity
G0:0001856
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                    complement component C5a binding
                    [myelin basic protein]-arginine N-methyltransferase activity
G0:0016277
G0:0046554
                    malate dehydrogenase (NADP+) activity
G0:0030348
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                    syntaxin-3 binding
G0:0007108
                    cytokinesis, initiation of separation
                    catenin-TCF7L2 complex
G0:0071664
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G0:0071665
                    gamma-catenin-TCF7L2 complex
G0:0071663
                    positive regulation of granzyme B production
G0:0030378
                    serine racemase activity
                    high molecular weight B cell growth factor receptor binding
G0:0030372
                    cell migration involved in kidney development
G0:0035787
G0:0060658
                    nipple morphogenesis
G0:0018773
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                    acetylpyruvate hydrolase activity
                    CD4-positive, alpha-beta T cell costimulation
G0:0035783
GO:0035782
                    mature natural killer cell chemotaxis
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G0:0035789
            1
                    metanephric mesenchymal cell migration
G0:0032482
                    Rab protein signal transduction
G0:0060751
                    branch elongation involved in mammary gland duct branching
                    cyclic-di-GMP binding
G0:0035438
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G0:0032484
            1
                    Ral protein signal transduction
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G0:0061106
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G0:0061102
            1
                    stomach neuroendocrine cell differentiation
                    carotid body glomus cell differentiation
G0:0061103
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GO:0061100
                    lung neuroendocrine cell differentiation
G0:0061108
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                    seminal vesicle epithelium development
G0:0021897
                    forebrain astrocyte development
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G0:0042276
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G0:0042278
                    purine nucleoside metabolic process
G0:0043000
                    Golgi to plasma membrane CFTR protein transport
GO:0006505
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                    GPI anchor metabolic process
G0:0048337
            1
                    positive regulation of mesodermal cell fate specification
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                    NAD+ diphosphatase activity
GO:0000215
                    tRNA 2'-phosphotransferase activity
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                    growth hormone receptor activity
G0:0004900
                    erythropoietin receptor activity
G0:0004904
                    interferon receptor activity
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G0:0072362
            1
                    regulation of glycolytic process by negative regulation of transcription
from RNA polymerase II promoter
                    regulation of glycolytic by positive regulation of transcription from RNA
G0:0072363
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polymerase II promoter
G0:0072366 1
                    regulation of cellular ketone metabolic process by positive regulation of
transcription from RNA polymerase II promoter
G0:0072365
                    regulation of cellular ketone metabolic process by negative regulation of
transcription from RNA polymerase II promoter
G0:2001273 1
G0:0042661 1
                    regulation of glucose import in response to insulin stimulus regulation of mesodermal cell fate specification
G0:0042666 1
                    negative regulation of ectodermal cell fate specification
G0:0042667
                    auditory receptor cell fate specification
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G0:0090025
                    regulation of monocyte chemotaxis
G0:0033577
                    protein glycosylation in endoplasmic reticulum
GO:0031741
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                    type B gastrin/cholecystokinin receptor binding
G0:0051174
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                    regulation of phosphorus metabolic process
                    regulation of nitrogen compound metabolic process
G0:0051171
                    aspartate-tRNA(Asn) ligase activity glutamate-tRNA(Gln) ligase activity
G0:0050560
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G0:0050561
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G0:0010878
                    cholesterol storage
GO:0005368
                    taurine transmembrane transporter activity
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G0:0005369
            1
                    taurine:sodium symporter activity
G0:0008907
                    integrase activity
G0:0005362
                    low-affinity glucose:sodium symporter activity
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                    N6-(1,2-dicarboxyethyl)AMP AMP-lyase (fumarate-forming) activity
G0:0004018
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G0:0060313
                    negative regulation of blood vessel remodeling
GO:0051282
                    regulation of sequestering of calcium ion
            1
GO:0004014
            1
                    adenosylmethionine decarboxylase activity
G0:1902409
                    mitotic cytokinetic cell separation
GO:0034255
            1
                    regulation of urea metabolic process
G0:0001621
            1
                    ADP receptor activity
G0:0036004
                    GAF domain binding
GO:0010876
                    lipid localization
            1
                    protein phosphatase type 4 regulator activity
G0:0030362
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G0:0061157 1
                    mRNA destabilization
```

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G0:0032788 1
G0:0032789 1
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                    unsaturated monocarboxylic acid metabolic process
G0:0032782 1
                    bile acid secretion
                    renal response to blood flow involved in circulatory renin-angiotensin
G0:0001999 1
regulation of systemic arterial blood pressure
G0:0001998 1
                   angiotensin mediated vasoconstriction involved in regulation of systemic
arterial blood pressure
G0:0001993 1
                    regulation of systemic arterial blood pressure by norepinephrine-
epinephrine
G0:0052739 1
                    phosphatidylserine 1-acylhydrolase activity
G0:1901189
                    positive regulation of ephrin receptor signaling pathway
                    positive regulation of ERBB signaling pathway
G0:1901186 1
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G0:0055100
                    adiponectin binding
G0:1901184
            1
                    regulation of ERBB signaling pathway
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G0:0052731
                    phosphocholine phosphatase activity
G0:0033783
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                    25-hydroxycholesterol 7alpha-hydroxylase activity
                    24-hydroxycholesterol 7alpha-hydroxylase activity
G0:0033782
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GO:0033781
                    cholesterol 24-hydroxylase activity
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G0:0016046
            1
                    detection of fungus
G0:0070459
                    prolactin secretion
G0:0045523
                    interleukin-27 receptor binding
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G0:0070105
            1
                    positive regulation of interleukin-6-mediated signaling pathway
G0:0036222
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                    XTP diphosphatase activity
G0:0047012
            1
                    sterol-4-alpha-carboxylate 3-dehydrogenase (decarboxylating) activity
G0:0071275
            1
                    cellular response to aluminum ion
                    3-hydroxy-2-methylbutyryl-CoA dehydrogenase activity
G0:0047015
                    negative regulation of the force of heart contraction by chemical signal
GO:0003108
            1
G0:0003106
            1
                    negative regulation of glomerular filtration by angiotensin
                    laminin-8 complex
G0:0043257
            1
G0:0046434
                    organophosphate catabolic process
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GO:1901989
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                    positive regulation of cell cycle phase transition
                    venous endothelial cell differentiation
G0:0060843
                    negative regulation of retinoic acid biosynthetic process
GO: 1900053
            1
G0:0030369
            1
                    ICAM-3 receptor activity
G0:0044088
                    regulation of vacuole organization
G0:0043482
                    cellular pigment accumulation
            1
G0:0034645
            1
                    cellular macromolecule biosynthetic process
G0:0034649
                    histone demethylase activity (H3-monomethyl-K4 specific)
                    sperm mitochondrial sheath
GO:0097226
           1
G0:0008613
            1
                    diuretic hormone activity
G0:0097224
                    sperm connecting piece
G0:0097222
                    mitochondrial mRNA polyadenylation
            1
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G0:0043622
                    cortical microtubule organization
G0:0061379
                    inferior colliculus development
G0:0090187
            1
                    positive regulation of pancreatic juice secretion
G0:0061374
                    mammillothalamic axonal tract development
                    mammary gland lobule development
G0:0061377
G0:0060422
                    peptidyl-dipeptidase inhibitor activity
                    positive regulation of cell adhesion molecule production
G0:0060355
G0:0060356
                    leucine import
G0:0090237
                    regulation of arachidonic acid secretion
            1
GO:0060359
            1
                    response to ammonium ion
G0:0010836
                    negative regulation of protein ADP-ribosylation
                    regulation of protein ADP-ribosylation
G0:0010835
            1
G0:0047312
            1
                    L-phenylalanine:pyruvate aminotransferase activity
G0:0045622
                    regulation of T-helper cell differentiation
G0:0005998
                    xylulose catabolic process
            1
G0:0005996
            1
                    monosaccharide metabolic process
                    acyl carnitine transmembrane transporter activity
G0:0015227
GO:0005993
                    trehalose catabolic process
            1
G0:0045940
            1
                    positive regulation of steroid metabolic process
G0:0051903
                    S-(hydroxymethyl)glutathione dehydrogenase activity
G0:0051908
                    double-stranded DNA 5'-3' exodeoxyribonuclease activity
            1
                    negative regulation of cell fate specification
GO:0009996
            1
G0:0006714
                    sesquiterpenoid metabolic process
                    androgen catabolic process
G0:0006710
            1
GO:0006711
                    estrogen catabolic process
G0:0006713
                    glucocorticoid catabolic process
G0:0030526
                    granulocyte macrophage colony-stimulating factor receptor complex
            1
G0:0061598
            1
                    molybdopterin adenylyltransferase activity
G0:0046016
                    positive regulation of transcription by glucose
                    structural constituent of cell wall
GO:0005199
            1
G0:0047860
            1
                    diiodophenylpyruvate reductase activity
                    negative regulation of integrin-mediated signaling pathway
G0:2001045 1
```

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G0:0004422 1
G0:0036250 1
                    hypoxanthine phosphoribosyltransferase activity
                    peroxisome transport along microtubule
                    positive regulation of cellular response to drug
G0:2001040 1
G0:1990009 1
G0:0004423 1
                    retinal cell apoptotic process
                    iduronate-2-sulfatase activity
G0:1990001 1
                    inhibition of cysteine-type endopeptidase activity involved in apoptotic
process
G0:1990005 1
                    granular vesicle
                    beta-amyloid clearance
G0:0097242 1
G0:0004573 1
G0:0004577 1
                    mannosyl-oligosaccharide glucosidase activity
                    N-acetylglucosaminyldiphosphodolichol N-acetylglucosaminyltransferase
activity
           1
G0:0004574
                    oligo-1,6-glucosidase activity
                    sucrose alpha-glucosidase activity
G0:0004575
            1
G0:0004578
                    chitobiosyldiphosphodolichol beta-mannosyltransferase activity
G0:0052904 1
                    N1-acetylspermidine:oxygen oxidoreductase (3-acetamidopropanal-forming)
activity
G0:0052906
                    tRNA (guanine(37)-N(1))-methyltransferase activity
G0:0016262
                    protein N-acetylglucosaminyltransferase activity
            1
G0:0016860
            1
                    intramolecular oxidoreductase activity
G0:0000003
                    reproduction
G0:0014038
                    regulation of Schwann cell differentiation
            1
G0:0000009
            1
                    alpha-1,6-mannosyltransferase activity
                    mesenchymal cell proliferation involved in ureter development
G0:0072198
            1
GO:0009191
            1
                    ribonucleoside diphosphate catabolic process
G0:0072192
            1
                    ureter epithelial cell differentiation
G0:0072195
                    kidney smooth muscle cell differentiation
           1
G0:0018032
                    protein amidation
G0:0003921
            1
                    GMP synthase activity
                    GMP synthase (glutamine-hydrolyzing) activity
G0:0003922
            1
G0:0072517
                    host cell viral assembly compartment
            1
           1
G0:0017186
                    peptidyl-pyroglutamic acid biosynthetic process, using glutaminyl-peptide
cyclotransferase
GO:0070736 1
                    protein-glycine ligase activity, initiating
                    protein-glycine ligase activity
G0:0070735
G0:0070733 1
                    protein adenylyltransferase activity
G0:0006231 1
G0:0046204 1
                    dTMP biosynthetic process
                    nor-spermidine metabolic process
G0:0042851
                    L-alanine metabolic process
GO:0002368
            1
                    B cell cytokine production
G0:0050353
            1
                    trimethyllysine dioxygenase activity
GO:0050355
                    triphosphatase activity
                    3-mercaptopyruvate sulfurtransferase activity
G0:0016784
           1
1
G0:0016785
                    transferase activity, transferring selenium-containing groups
                    cadmium ion transmembrane transporter activity
G0:0015086 1
G0:0015087 1
G0:0002528 1
G0:0015087
                    cobalt ion transmembrane transporter activity
                    regulation of vascular permeability involved in acute inflammatory
response
G0:0015782
                    CMP-N-acetylneuraminate transport
G0:0015781
                    pyrimidine nucleotide-sugar transport
G0:0015787
                    UDP-glucuronic acid transport
G0:0015785
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1
                    UDP-galactose transport
GO:0010557
                    positive regulation of macromolecule biosynthetic process
G0:0071461
                    cellular response to redox state
G0:0047220
                    galactosylxylosylprotein 3-beta-galactosyltransferase activity
            1
G0:0001874
                    (1->3)-beta-D-glucan receptor activity
                    cellular response to alkalinity
G0:0071469
G0:0046577
                    long-chain-alcohol oxidase activity
            1
           1
G0:0046570
                    methylthioribulose 1-phosphate dehydratase activity
G0:0051754
                    meiotic sister chromatid cohesion, centromeric
G0:0051758
                    homologous chromosome movement towards spindle pole involved in homologous
            1
chromosome segregation
                    negative regulation of macrophage inflammatory protein 1 alpha production
G0:0071641 1
G0:0044599 1
G0:0034417 1
                    AP-5 adaptor complex
G0:0034417
                    bisphosphoglycerate 3-phosphatase activity
G0:2000572 1
                    positive regulation of interleukin-4-dependent isotype switching to IgE
isotypes
G0:0045815
                    positive regulation of gene expression, epigenetic
G0:0033373
                    maintenance of protease location in mast cell secretory granule
           1
G0:2000576
                    positive regulation of microtubule motor activity
G0:0033371
            1
                    T cell secretory granule organization
G0:0035238 1
                    vitamin A biosynthetic process
GO:0030311
                    poly-N-acetyllactosamine biosynthetic process
            1
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G0:0042292
                    URM1 activating enzyme activity
G0:0061296 1
                    negative regulation of mesenchymal cell apoptotic process involved in
```

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mesonephric nephron morphogenesis
G0:0035693
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                    NOS2-CD74 complex
G0:0033193
                    Lsd1/2 complex
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                    4-hydroxybenzoate decaprenyltransferase activity
G0:0002083
G0:0016250
            1
                    N-sulfoglucosamine sulfohydrolase activity
G0:0016521
                    pituitary adenylate cyclase activating polypeptide activity
           1
G0:0016256
                    N-glycan processing to lysosome
G0:0017125
            1
                    deoxycytidyl transferase activity
G0:0017126
                    nucleologenesis
G0:0045887
            1
                    positive regulation of synaptic growth at neuromuscular junction
G0:1990081
            1
                    trimethylamine receptor activity
                    asparagine biosynthetic process
G0:0006529
G0:0072200 1
                    negative regulation of mesenchymal cell proliferation involved in ureter
development
                    extracellular structure organization
G0:0043062 1
G0:0046687
                    response to chromate
G0:0046680
            1
                    response to DDT
G0:0000271
           1
                    polysaccharide biosynthetic process
                    negative regulation of interleukin-12 biosynthetic process
GO: 0045083
           1
G0:0043783
            1
                    oxidoreductase activity, oxidizing metal ions with flavin as acceptor
G0:0004964
                    luteinizing hormone receptor activity
G0:0004961
                    thromboxane A2 receptor activity
            1
G0:0004960
            1
                    thromboxane receptor activity
G0:0004963
                    follicle-stimulating hormone receptor activity
           1
G0:0072347
            1
                    response to anesthetic
G0:0072340
            1
                    cellular lactam catabolic process
                    pseudopodium membrane
G0:0031260
                    pseudopodium organization
GO:0031268
G0:0031704
            1
                    apelin receptor binding
G0:0048352
                    paraxial mesoderm structural organization
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G0:0004381 1
G0:0031707
                    endothelin A receptor binding
                    fucosylgalactoside 3-alpha-galactosyltransferase activity
G0:0004380 1
                    glycoprotein-fucosylgalactoside alpha-N-acetylgalactosaminyltransferase
activity
G0:0004382
                    guanosine-diphosphatase activity
G0:0009074 1
                    aromatic amino acid family catabolic process
G0:0010034
            1
                    response to acetate
           1
G0:0018208
                    peptidyl-proline modification
G0:0003069 1
                    vasodilation by acetylcholine involved in regulation of systemic arterial
blood pressure
G0:0004037 1
                    allantoicase activity
G0:0004034 1
                    aldose 1-epimerase activity
G0:0097185
G0:0097185 1
G0:0001605 1
                    cellular response to azide
                    adrenomedullin receptor activity
G0:0001604 1
                    urotensin II receptor activity
           1
G0:0036060
                    slit diaphragm assembly
G0:0016896
            1
                    exoribonuclease activity, producing 5'-phosphomonoesters
                    canonical Wnt signaling pathway involved in neural plate
G0:0060823
anterior/posterior pattern formation
G0:0032762 1
                    mast cell cytokine production
G0:0032812 1
                    positive regulation of epinephrine secretion
G0:0032814 1
G0:0031860 1
                    regulation of natural killer cell activation
                    telomeric 3' overhang formation
G0:0032769
                    negative regulation of monooxygenase activity
           1
           1
GO:0031861
                    prolactin-releasing peptide receptor binding
G0:0071877
            1
                    regulation of adrenergic receptor signaling pathway
G0:0071874
                    cellular response to norepinephrine stimulus
G0:0071878
                    negative regulation of adrenergic receptor signaling pathway
            1
G0:0008653
            1
                    lipopolysaccharide metabolic process
G0:0043189
                    H4/H2A histone acetyltransferase complex
                    positive regulation of antral ovarian follicle growth
GO:2000388
            1
G0:0021683
            1
                    cerebellar granular layer morphogenesis
G0:0021682
                    nerve maturation
G0:0070694
                    deoxyribonucleoside 5'-monophosphate N-glycosidase activity
            1
G0:0015440
            1
                    peptide-transporting ATPase activity
G0:0042941
                    D-alanine transport
G0:0033677
                    DNA/RNA helicase activity
            1
G0:0045503
            1
                    dynein light chain binding
G0:0070471
                    uterine smooth muscle contraction
GO:0047560
                    3-dehydrosphinganine reductase activity
            1
G0:0071250
            1
                    cellular response to nitrite
G0:0042044
                    fluid transport
GO:0071259
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                    cellular response to magnetism
G0:2000331
            1
                    regulation of terminal button organization
                    negative regulation of cellular response to hypoxia
G0:1900038 1
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G0:1900035 1
G0:1900037 1
                    negative regulation of cellular response to heat
                    regulation of cellular response to hypoxia
                    negative regulation of synaptic transmission, cholinergic
G0:0032223 1
           1
G0:0052822
                    DNA-3-methylguanine glycosylase activity
G0:0052821
            1
                    DNA-7-methyladenine glycosylase activity
G0:0035992
                    tendon formation
G0:0047389
           1
1
                    glycerophosphocholine phosphodiesterase activity
G0:0034334
                    adherens junction maintenance
                    negative regulation of mesenchymal stem cell differentiation
G0:2000740 1
G0:0097200 1
                    cysteine-type endopeptidase activity involved in execution phase of
apoptosis
G0:0005816 1
                    spindle pole body
G0:0061354
                    planar cell polarity pathway involved in pericardium morphogenesis
planar cell polarity pathway involved in cardiac muscle tissue
G0:0061354 1
G0:0061350 1
morphogenesis
GO:0061358 1
                    negative regulation of Wnt protein secretion
G0:0060405
                    regulation of penile erection
G0:0060407
                    negative regulation of penile erection
G0:0060400
G0:0060400 1
G0:0015868 1
                    negative regulation of growth hormone receptor signaling pathway
                    purine ribonucleotide transport
G0:0015865 1
                    purine nucleotide transport
G0:0015862
            1
1
                    uridine transport
                    purine nucleoside transmembrane transport
G0:0015860
G0:0046210
            1
                    nitric oxide catabolic process
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                    RNA polymerase I core binding
G0:0001042
G0:0046745
            1
                    viral capsid secondary envelopment
                    snRNA-activating protein complex
G0:0019185 1
                    positive regulation of tolerance induction to self antigen
           1
1
G0:0002651
                    positive regulation of DNA damage response, signal transduction by p53
G0:1902164
class mediator resulting in transcription of p21 class mediator
G0:1902167 1
                    positive regulation of intrinsic apoptotic signaling pathway in response
to DNA damage by p53 class mediator
G0:0035573 1
                    N-terminal peptidyl-serine trimethylation
G0:0002380 1
G0:0004493 1
G0:0002380
                    immunoglobulin secretion involved in immune response
                    methylmalonyl-CoA epimerase activity
G0:0046525 1
                    xylosylprotein 4-beta-galactosyltransferase activity
G0:0016920
            1
1
                    pyroglutamyl-peptidase activity
                    positive regulation of sodium ion transmembrane transport
G0:1902307
G0:0046521
                    sphingoid catabolic process
                    negative regulation of potassium ion export
GO: 1902303
            1
GO:0009452
            1
                    7-methylguanosine RNA capping
G0:0046520
                    sphingoid biosynthetic process
G0:1902309
            1
1
                    negative regulation of peptidyl-serine dephosphorylation
                    interleukin-1 Type II receptor antagonist activity
G0:0045353
                    negative regulation of interferon-alpha biosynthetic process
G0:0045355
G0:1990029
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                    vasomotion
G0:0008108
            1
                    UDP-glucose:hexose-1-phosphate uridylyltransferase activity
GO:0000390
                    spliceosomal complex disassembly
G0:0045720
                    negative regulation of integrin biosynthetic process
            1
G0:0004555
                    alpha, alpha-trehalase activity
G0:0072707
                    cellular response to sodium dodecyl sulfate
                    acireductone synthase activity
G0:0043874
            1
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                    primary follicle stage
G0:0048160
G0:0000023
                    maltose metabolic process
G0:0000026
                    alpha-1,2-mannosyltransferase activity
            1
G0:0014016
            1
                    neuroblast differentiation
G0:0014013
                    regulation of gliogenesis
G0:0004730
                    pseudouridylate synthase activity
            1
            1
G0:0031673
                    H zone
G0:0004733
                    pyridoxamine-phosphate oxidase activity
G0:0004736
                    pyruvate carboxylase activity
            1
G0:0004810
            1
                    tRNA adenylyltransferase activity
G0:0004363
                    glutathione synthase activity
G0:0071449
                    cellular response to lipid hydroperoxide
            1
G0:0002897
            1
                    positive regulation of central B cell tolerance induction
G0:0051322
                    anaphase
G0:0050333
                    thiamin-triphosphatase activity
            1
                    N-terminal peptidyl-alanine trimethylation
GO:0018012
            1
G0:0018016
                    N-terminal peptidyl-proline dimethylation
G0:0010577
                    metalloenzyme activator activity
            1
                    cellular response to low-density lipoprotein particle stimulus
G0:0071404
            1
G0:0044772
                    mitotic cell cycle phase transition
G0:0071401
                    cellular response to triglyceride
            1
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G0:0002143
                    tRNA wobble position uridine thiolation
G0:0070315 1
                    G1 to G0 transition involved in cell differentiation
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G0:0032594 1
G0:0032597 1
                    protein transport within lipid bilayer
                    B cell receptor transport into membrane raft
                    regulation of hematopoietic progenitor cell differentiation
G0:1901532 1
G0:1901536
           1
                    negative regulation of DNA demethylation
G0:0045686
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                    negative regulation of glial cell differentiation
                    negative regulation of metanephric mesenchymal cell migration
GO:2000590
G0:2000591
                    positive regulation of metanephric mesenchymal cell migration
G0:1901021
            1
                    positive regulation of calcium ion transmembrane transporter activity
                    positive regulation of optic nerve formation
G0:2000597
G0:0030337
                    DNA polymerase processivity factor activity
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G0:0035743
                    CD4-positive, alpha-beta T cell cytokine production
                    T-helper 2 cell cytokine production
G0:0035745
            1
G0:0035717
                    chemokine (C-C motif) ligand 7 binding
G0:1901739
            1
                    regulation of myoblast fusion
                    FANCM-MHF complex
G0:0071821
G0:1902514
                    regulation of generation of L-type calcium current
                    ketone catabolic process
G0:0042182
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G0:0046514
                    ceramide catabolic process
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G0:0008424
                    glycoprotein 6-alpha-L-fucosyltransferase activity
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G0:0072234
            1
                    metanephric nephron tubule development
G0:0042231
                    interleukin-13 biosynthetic process
G0:0072227
                    metanephric macula densa development
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G0:0043049
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                    otic placode formation
                    dolichyl monophosphate biosynthetic process
G0:0043048
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G0:0072229
            1
                    metanephric proximal convoluted tubule development
G0:0072235
            1
                    metanephric distal tubule development
G0:0000257
                    nitrilase activity
G0:0000256
                    allantoin catabolic process
            1
G0:0000254
            1
                    C-4 methylsterol oxidase activity
G0:0000250
                    lanosterol synthase activity
           1
G0:0004943
                    C3a anaphylatoxin receptor activity
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GO:0004941
            1
                    beta2-adrenergic receptor activity
G0:0004940
                    betal-adrenergic receptor activity
GO:0060096
                    {\tt serotonin}\ {\tt secretion},\ {\tt neurotransmission}
            1
G0:0039008
            1
                    pronephric nephron tubule morphogenesis
G0:0010446
                    response to alkalinity
G0:0060592
                    mammary gland formation
            1
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G0:0031240
                    external side of cell outer membrane
GO:0060677
                    ureteric bud elongation
                    cholesterol biosynthetic process via 24,25-dihydrolanosterol
G0:0033488
G0:0033488 1
G0:0060678 1
                    dichotomous subdivision of terminal units involved in ureteric bud
branching
           1
1
G0:0010370
                    perinucleolar chromocenter
G0:0048370
                    lateral mesoderm formation
                    positive regulation of renal albumin absorption
G0:2000534
G0:0005017
                    platelet-derived growth factor-activated receptor activity
            1
G0:2000535
            1
                    regulation of entry of bacterium into host cell
G0:0005018
                    platelet-derived growth factor alpha-receptor activity
                    intussusceptive angiogenesis
G0:0002041
            1
                    negative regulation of NK T cell activation
G0:0051134
G0:0051139
                    metal ion:proton antiporter activity
GO:0009013
                    succinate-semialdehyde dehydrogenase [NAD(P)+] activity
            1
G0:0050528
            1
                    acyloxyacyl hydrolase activity
G0:2000533
                    negative regulation of renal albumin absorption
G0:0009019
                    tRNA (guanine-N1-)-methyltransferase activity
            1
GO:0004055
            1
                    argininosuccinate synthase activity
                    negative regulation of T cell migration
G0:2000405
G0:0004057
            1
                    arginyltransferase activity
G0:0004056
            1
                    argininosuccinate lyase activity
G0:0004051
                    arachidonate 5-lipoxygenase activity
GO:0004059
                    aralkylamine N-acetyltransferase activity
            1
GO:0004058
            1
                    aromatic-L-amino-acid decarboxylase activity
G0:0036049
                    peptidyl-lysine desuccinylation
G0:0036048
                    protein desuccinylation
            1
G0:0036041
            1
                    long-chain fatty acid binding
G0:0022613
                    ribonucleoprotein complex biogenesis
G0:0022616
                    DNA strand elongation
            1
G0:0022615
            1
                    protein to membrane docking
G0:0060448
                    dichotomous subdivision of terminal units involved in lung branching
G0:0045299
                    otolith mineralization
            1
G0:0090235
            1
                    regulation of metaphase plate congression
G0:0043603
                    cellular amide metabolic process
G0:0043602
                    nitrate catabolic process
            1
GO:0003912
            1
                    DNA nucleotidylexotransferase activity
G0:0070673 1
                    response to interleukin-18
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G0:0042954 1
G0:0051025 1
                     lipoprotein transporter activity
                     negative regulation of immunoglobulin secretion
G0:0070853 1
                     myosin VI binding
G0:0023035
            1
                    CD40 signaling pathway
G0:0051445
            1
                     regulation of meiotic cell cycle
                    nuclear-transcribed mRNA catabolic process, exonucleolytic
G0:0000291
G0:0030281
                     structural constituent of cutaneous appendage
           1
G0:0016034
                    maleylacetoacetate isomerase activity
G0:0000822
            1
                    inositol hexakisphosphate binding
G0:0040001
            1
                    establishment of mitotic spindle localization
G0:0000824
            1
                     inositol tetrakisphosphate 3-kinase activity
                    cellular organofluorine metabolic process
G0:0090346
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G0:0005307
                    choline:sodium symporter activity
GO:1901491
            1
                     negative regulation of lymphangiogenesis
                    positive regulation of lymphangiogenesis
G0:1901492
            1
G0:0021999
                     neural plate anterior/posterior regionalization
            1
G0:0021998
            1
                    neural plate mediolateral regionalization
G0:0021990
            1
                    neural plate formation
                    initiation of neural tube closure
G0:0021993
            1
G0:0021997
            1
                    neural plate axis specification
                     regulation of cytokine production involved in inflammatory response
G0:1900015
GO:0015744
            1
                    succinate transport
G0:1900011
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                    negative regulation of corticotropin-releasing hormone receptor activity
                    arterial endothelial cell fate commitment
G0:0060844
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G0:0044089
            1
                    positive regulation of cellular component biogenesis
G0:0032127
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                    dense core granule membrane
                    mature chylomicron
G0:0034359
            1
G0:0034358
            1
                    plasma lipoprotein particle
G0:0017089
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                     glycolipid transporter activity
                    NAD biosynthesis via nicotinamide riboside salvage pathway
G0:0034356
            1
G0:0034602
            1
                     oxoglutarate dehydrogenase (NAD+) activity
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G0:0034353
                    RNA pyrophosphohydrolase activity
G0:0051490
                    negative regulation of filopodium assembly
G0:0015849
                    organic acid transport
            1
G0:0030298
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                     receptor signaling protein tyrosine kinase activator activity
                    positive regulation of chronic inflammatory response
G0:0002678
                    regulation of acute inflammatory response
G0:0002673
            1
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G0:0097484
                    dendrite extension
G0:0030294
                    receptor signaling protein tyrosine kinase inhibitor activity
GO:0005956
                    protein kinase CK2 complex
            1
G0:0004632
            1
                     phosphopantothenate--cysteine ligase activity
G0:0004142
                    diacylglycerol cholinephosphotransferase activity
G0:0016247
            1
                     channel regulator activity
            1
G0:0004140
                     dephospho-CoA kinase activity
G0:0016246
                     RNA interference
G0:1903094
                    negative regulation of protein K48-linked deubiquitination
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G0:0010813
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                     neuropeptide catabolic process
G0:0060464
                     lung lobe formation
G0:0060461
                    right lung morphogenesis substance P catabolic process
            1
G0:0010814
G0:1902121
                     lithocholic acid binding
G0:0004534
                    5'-3' exoribonuclease activity
            1
            1
G0:0004530
                    deoxyribonuclease I activity
G0:0006751
                    glutathione catabolic process
                    regulation of developmental growth regulation of fibroblast proliferation
G0:0048638
            1
G0:0048145
             1
G0:0048632
                    negative regulation of skeletal muscle tissue growth
                    \ensuremath{\mathsf{ATP}}\xspace\ensuremath{\mathsf{-binding}}\xspace and phosphorylation-dependent chloride channel activity response to fluoxetine
G0:0005224
            1
            1
G0:0014076
G0:0042720
                     mitochondrial inner membrane peptidase complex
            1
GO:0031651
                    negative regulation of heat generation
            1
G0:0060280
            1
                     negative regulation of ovulation
                    negative regulation of cyclin-dependent protein serine/threonine kinase
G0:0031658
activity involved in G1/S transition of mitotic cell cycle
G0:0060284
            1
                    regulation of cell development
G0:1902857
                    positive regulation of nonmotile primary cilium assembly
G0:0042892 1
G0:0042840 1
                     chloramphenicol transport
                    D-glucuronate catabolic process
G0:0047191
                    1-alkylglycerophosphocholine 0-acyltransferase activity
GO: 0022406
            1
                    membrane docking
G0:0022402
             1
                     cell cycle process
G0:0002878 1
                    negative regulation of acute inflammatory response to non-antigenic
stimulus
                    negative regulation of hormone biosynthetic process
G0:0032353
G0:0007576 1
                    nucleolar fragmentation
```

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G0:0015217 1
G0:0015216 1
                    ADP transmembrane transporter activity
                    purine nucleotide transmembrane transporter activity
G0:0050313 1
                    sulfur dioxygenase activity
                    negative regulation of DNA-templated transcription, initiation
           1
G0:2000143
G0:2000412
            1
                    positive regulation of thymocyte migration
                    pentacyclic triterpenoid metabolic process
G0:0019742
G0:0019964
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1
                    interferon-gamma binding
G0:0019747
                    regulation of isoprenoid metabolic process
                    type I interferon binding
G0:0019962 1
G0:0019969
            1
                    interleukin-10 binding
G0:0070086
            1
                    ubiquitin-dependent endocytosis
G0:0019730
           1
                    antimicrobial humoral response
G0:0071936
G0:0071936 1
G0:2000751 1
                    coreceptor activity involved in Wnt signaling pathway
                    histone H3-T3 phosphorylation involved in chromosome passenger complex
localization to kinetochore
G0:2000027 1
G0:2000758 1
                    regulation of organ morphogenesis
                    positive regulation of peptidyl-lysine acetylation
G0:0023057 1
                    negative regulation of signaling
G0:0070335 1
G0:0038042 1
                    aspartate binding
                    dimeric G-protein coupled receptor signaling pathway
                    morphine receptor activity
G0:0038047 1
           1
1
G0:0038046
                    enkephalin receptor activity
G0:0038049
                    ligand-activated RNA polymerase II transcription factor binding
transcription factor activity
G0:0038048 1
                    dynorphin receptor activity
G0:0016223
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                    beta-alanine-pyruvate transaminase activity
                    quanine phosphoribosyltransferase activity
G0:0052657 1
G0:0052652 1
G0:0021697 1
                    cyclic purine nucleotide metabolic process
                    cerebellar cortex formation
                    cerebellar Purkinje cell layer maturation
G0:0021691 1
                    Wnt-activated signaling pathway involved in forebrain neuron fate
G0:0021881 1
commitment
                    positive regulation of photoreceptor cell differentiation
G0:0046534
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                    2,3-bisphosphoglycerate-dependent phosphoglycerate mutase activity
G0:0046539
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                    histamine N-methyltransferase activity
G0:0045713
                    low-density lipoprotein particle receptor biosynthetic process
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G0:0017168
                    5-oxoprolinase (ATP-hydrolyzing) activity
G0:0047621
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                    acylpyruvate hydrolase activity
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                    acylglycerol kinase activity
G0:1902732
                    positive regulation of chondrocyte proliferation
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                    G-protein coupled receptor signaling pathway involved in heart process
G0:0086103
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                    peptidyl-lysine hydroxylation to 5-hydroxy-L-lysine
G0:0018395
                    threonine metabolic process
metanephric DCT cell differentiation
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G0:0072240
                    B cell chemotaxis across high endothelial venule
G0:0035769
G0:0035768
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                    endothelial cell chemotaxis to fibroblast growth factor
G0:1900758
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                    negative regulation of D-amino-acid oxidase activity
G0:1900451
                    positive regulation of glutamate receptor signaling pathway
G0:0031001
                    response to brefeldin A
G0:0072303
                    positive regulation of glomerular metanephric mesangial cell proliferation
G0:0039020
                    pronephric nephron tubule development
G0:0039023
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                    pronephric duct morphogenesis
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                    response to triglyceride
G0:0015980
                    energy derivation by oxidation of organic compounds
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                    ribose phosphate biosynthetic process
G0:0097013
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response
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                    methylputrescine oxidase activity
G0:0035493 1
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                    25-hydroxycholecalciferol-24-hydroxylase activity
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                    positive regulation of Lys63-specific deubiquitinase activity
G0:1903007
GO:0060611
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G0:0010768
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response to UV-induced DNA damage
G0:0005034 1
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                    osmosensor activity
                    enucleate erythrocyte development
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                    positive regulation of cytokine activity
G0:0033182
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                    regulation of histone ubiquitination
G0:0044829
                    positive regulation by host of viral genome replication
G0:0060300
                    regulation of cytokine activity
                    microspike
G0:0044393
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                    small protein conjugating enzyme binding
G0:0044390
G0:1903008 1
                    organelle disassembly
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G0:0060305 1
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                    regulation of cell diameter
                    regulation of phosphatidylinositol dephosphorylation
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                    dihydrotestosterone 17-beta-dehydrogenase activity
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                    positive regulation of mesenchymal stem cell proliferation
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                    protein localization to cell leading edge
G0:0045127
                    N-acetylglucosamine kinase activity
G0:0033214
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                    iron assimilation by chelation and transport
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                    MAP kinase kinase kinase kinase activity
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G0:0043624
                    cellular protein complex disassembly
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G0:0045273
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                    respiratory chain complex II
G0:0045271
                    respiratory chain complex I
                    L-threonine catabolic process to glycine
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                    lactate oxidation
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GO:0004077
                    biotin-[acetyl-CoA-carboxylase] ligase activity
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                    mTOR-FKBP12-rapamycin complex
                    positive regulation of nucleotide-binding oligomerization domain
G0:0070430
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containing 1 signaling pathway
G0:0070433
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                    negative regulation of nucleotide-binding oligomerization domain
containing 2 signaling pathway
                    positive regulation of nucleotide-binding oligomerization domain
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containing 2 signaling pathway
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G0:0032723 1
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G0:2000254 1
                    regulation of male germ cell proliferation
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G0:0033091
                    positive regulation of immature T cell proliferation
G0:2000256
                    positive regulation of male germ cell proliferation
G0:0060825 1
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plate anterior/posterior pattern formation
G0:0015152 1
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                    L-gulonate 3-dehydrogenase activity
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plate anterior/posterior pattern formation
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G0:0060169
                    negative regulation of adenosine receptor signaling pathway
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G0:0009309
                    amine biosynthetic process
G0:0009305
                    protein biotinylation
G0:0046705
                    CDP biosynthetic process
G0:0070649
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                    melanin-concentrating hormone receptor activity
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                    positive regulation of glomerulus development
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                    antigen transcytosis by M cells in mucosal-associated lymphoid tissue
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G0:0001581 1
                    response to potassium ion
                    detection of chemical stimulus involved in sensory perception of sour
taste
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                    cardiolipin binding
                    phosphatidylglycerol binding
GO:1901611
G0:0061061
                    muscle structure development
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                    carbohydrate response element binding
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G0:0072161
                    mesenchymal cell differentiation involved in kidney development
                    CD4-positive or CD8-positive, alpha-beta T cell lineage commitment
G0:0043369
            1
GO:0060446
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                    branching involved in open tracheal system development
G0:0003692
                    left-handed Z-DNA binding
G0:0002358
                    B cell homeostatic proliferation
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                    neolactotetraosylceramide alpha-2,3-sialyltransferase activity
                    nicotinate phosphoribosyltransferase activity
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G0:0031081 1
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G0:0042703
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G0:0042706
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receptor signaling pathway
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                    positive regulation of peripheral T cell tolerance induction
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G0:0040032 1
G0:2001142 1
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                    nicotinate transport
G0:0010603 1
                    regulation of cytoplasmic mRNA processing body assembly
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G0:0015230
                    FAD transmembrane transporter activity
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GO:0010609 1
expression
G0:0001587
                    Gq/11-coupled serotonin receptor activity
                    UTP:glucose-1-phosphate uridylyltransferase activity
G0:0003983 1
G0:0002581
                    negative regulation of antigen processing and presentation of peptide or
            1
polysaccharide antigen via MHC class II
G0:0015099 1
                    nickel cation transmembrane transporter activity
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G0:0015093
                    ferrous iron transmembrane transporter activity
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                    lead ion transmembrane transporter activity
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                    negative regulation of metanephric S-shaped body morphogenesis
G0:2000007
            1
                    negative regulation of metanephric comma-shaped body morphogenesis
                    positive regulation of DNA damage checkpoint
G0:2000003
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                    regulation of white fat cell proliferation positive regulation of white fat cell proliferation
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                    cGMP-dependent protein kinase activity
GO:0004692
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G0:0003322
G0:0003327
                    type B pancreatic cell fate commitment
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                    arachidonic acid 14,15-epoxygenase activity
G0:0008404
                    arachidonic acid 11,12-epoxygenase activity
G0:0008405
                    Krueppel-associated box domain binding
G0:0035851
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G0:0016768
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G0:0047391
                    alkylglycerophosphoethanolamine phosphodiesterase activity
                    glycerophosphocholine cholinephosphodiesterase activity
G0:0047390
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1
G0:0047394
                    glycerophosphoinositol inositolphosphodiesterase activity
                    positive regulation of the force of heart contraction by norepinephrine
G0:0003061
G0:0043553
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                    negative regulation of phosphatidylinositol 3-kinase activity
G0:0002095
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G0:0045735
                    nutrient reservoir activity
G0:0045738
                    negative regulation of DNA repair
                    Ral guanyl-nucleotide exchange factor activity
G0:0008321
G0:0002295
                    T-helper cell lineage commitment
G0:0071000
                    response to magnetism
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GO:0071004
                    U2-type prespliceosome
G0:0072268
                    pattern specification involved in metanephros development
GO:0072264
                    metanephric glomerular endothelium development
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                    negative regulation of phospholipase C-activating G-protein coupled
G0:1900737
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receptor signaling pathway
G0:0035709 1
G0:1900223 1
                    memory T cell activation
                    positive regulation of beta-amyloid clearance
G0:0035705 1
                    T-helper 17 cell chemotaxis
G0:0035445 1
G0:1900738 1
                    borate transmembrane transport
                    positive regulation of phospholipase C-activating G-protein coupled
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                    interphase microtubule organizing center
                    negative regulation of protein glycosylation
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                    regulation of lipoprotein lipid oxidation
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G0:0060588
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                    regulation of chromatin silencing at rDNA
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                    negative regulation of dermatome development
G0:0061181 1
                    regulation of chondrocyte development
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G0:0009234 1
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                    riboflavin biosynthetic process
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                    xanthine biosynthetic process
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G0:0072302
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G0:0009585
                    red, far-red light phototransduction
G0:1902997
                    negative regulation of neurofibrillary tangle assembly
G0:0009589
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                    detection of UV
                    skeletal muscle organ development
G0:0060538
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                    mannosyltransferase complex
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G0:0034242
                    negative regulation of syncytium formation by plasma membrane fusion
G0:0036088
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                    D-serine catabolic process
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                    alpha-2B adrenergic receptor binding
                    methionine adenosyltransferase complex
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                    poly-pyrimidine tract binding
                    synaptic vesicle fusion to presynaptic membrane
G0:0031629
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                    development of primary sexual characteristics
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G0:0035853
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                    chromosome passenger complex localization to spindle midzone
                    icosatetraenoic acid binding
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                    lymphocyte aggregation
                    biphenyl catabolic process
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GO:0004096
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                    positive regulation of striated muscle contraction
GO:0040040
                    thermosensory behavior
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                    small ribosomal subunit rRNA binding
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G0:0070184
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                    negative regulation of interleukin-18 production
G0:0032701
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                    negative regulation of fibril organization
G0:1902904
GO:2000277
                    positive regulation of oxidative phosphorylation uncoupler activity
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G0:0033609
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                    oxalate metabolic process
                    mesodermal to mesenchymal transition involved in gastrulation
GO:0060809
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                    dihydrolipoyllysine-residue acetyltransferase activity
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                    transcription of nuclear large rRNA transcript from RNA polymerase I
promoter
G0:0060802 1
                    epiblast cell-extraembryonic ectoderm cell signaling involved in
anterior/posterior axis specification
G0:0060804 1
                    positive regulation of Wnt signaling pathway by BMP signaling pathway
G0:0051531
                    NFAT protein import into nucleus
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G0:0060806
                    negative regulation of cell differentiation involved in embryonic placenta
development
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                    regulation of proteinase activated receptor activity
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                    detoxification of cadmium ion
G0:0071584
                    negative regulation of zinc ion transmembrane import
G0:0016153
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                    urocanate hydratase activity
G0:0016150
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                    translation release factor activity, codon nonspecific
                    pyrimidine-nucleoside phosphorylase activity
G0:0016154
G0:0051459
                    regulation of corticotropin secretion
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            1
                    corticotropin secretion
                    intracellular pH reduction
G0:0051452
GO:0005873
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                    plus-end kinesin complex
G0:0072016
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                    glomerular parietal epithelial cell development
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                    FMN transmembrane transporter activity
G0:0043128
                    positive regulation of 1-phosphatidylinositol 4-kinase activity
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G0:0046272
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G0:1901628
                    positive regulation of postsynaptic membrane organization
                    regulation of immunoglobulin production
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G0:0030251
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                    guanylate cyclase inhibitor activity
G0:0003065
                    positive regulation of heart rate by epinephrine
G0:0003972
                    RNA ligase (ATP) activity
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                    UDP-N-acetylglucosamine diphosphorylase activity
G0:0003977
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G0:1901630
                    negative regulation of presynaptic membrane organization
GO:0003976
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acetylglucosaminephosphotransferase activity
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                    histone H3-K36 trimethylation
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kinase activity
G0:1990266 1
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G0:1990261
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                    angiogenesis involved in coronary vascular morphogenesis NAD+ synthase (glutamine-hydrolyzing) activity
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                    microglial cell proliferation
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G0:0003978
                    UDP-glucose 4-epimerase activity
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                    glucose 1-dehydrogenase [NAD(P)] activity
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                    dCDP biosynthetic process
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                    pre-mRNA 3'-splice site binding
                    NAD(P)H dehydrogenase (quinone) activity
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G0:0000379
                    tRNA-type intron splice site recognition and cleavage
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G0:0009917
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                    sterol 5-alpha reductase activity
                    hormone transport
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GO:0006060
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G0:0048677
                    axon extension involved in regeneration
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                    thymidylate kinase activity
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                    nucleosome mobilization
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                    thioether S-methyltransferase activity
G0:0072110
                    glomerular mesangial cell proliferation
                    interleukin-1 beta biosynthetic process
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                    glucose mediated signaling pathway
G0:0072060
                    outer medullary collecting duct development
                    oviduct epithelium development
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                    regulation of growth hormone receptor signaling pathway
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                    nuclear fragmentation involved in apoptotic nuclear change
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                    dCMP deaminase activity
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                    amylo-alpha-1,6-glucosidase activity
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                    metanephric capsule specification
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                    primary sex determination
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                    positive regulation of Schwann cell proliferation
GO:0001560
                    regulation of cell growth by extracellular stimulus
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                    extracellular vesicular exosome assembly
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                    bis(5'-nucleosyl)-tetraphosphatase activity
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                    positive regulation of ARF GTPase activity
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                    regulation of signal transduction by receptor internalization
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                    positive regulation of mitochondrial RNA catabolic process
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GO:0000966
                    RNA 5'-end processing
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                    positive regulation of rubidium ion transmembrane transporter activity
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                    positive regulation of rubidium ion transport
                    regulation of cellular response to X-ray
G0:2000683 1
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                    positive regulation of cellular response to X-ray
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                    glucan 1,3-alpha-glucosidase activity
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G0:1900245
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GO: 1900242
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                    formate metabolic process
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                    host programmed cell death induced by symbiont
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G0:0090081 1
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pathway
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immunological synapse formation
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regulation of transcription from RNA polymerase II promoter
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G0:0045113
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                    regulation of integrin biosynthetic process
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                    integrin biosynthetic process
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                    ethanolamine-phosphate cytidylyltransferase activity
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G0:0070612
            1
                    histone methyltransferase activity (H2A-R3 specific)
                    nucleosome-dependent ATPase activity
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G0:0070618
                    Grb2-Sos complex
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G0:0042931
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                    enterobactin transporter activity
G0:0042936
                    dipeptide transporter activity
                    cyclic-GMP-AMP binding
GO:0061507
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           1
                    regulation of cAMP-dependent protein kinase activity
G0:2000479
G0:2000478 1
                    positive regulation of metanephric glomerular visceral epithelial cell
development
G0:0051089 1
                    constitutive protein ectodomain proteolysis
G0:0031283 1
                    negative regulation of guanylate cyclase activity
           1
G0:0051083
                    'de novo' cotranslational protein folding
G0:0032277
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                    negative regulation of gonadotropin secretion
G0:0032272 1
                    negative regulation of protein polymerization
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G0:0032273 1
G0:0015378 1
                    positive regulation of protein polymerization
                    sodium:chloride symporter activity
                    positive regulation of glutamate metabolic process
G0:2000213
G0:2000212
                    negative regulation of glutamate metabolic process
            1
G0:0070486
            1
                    leukocyte aggregation
GO:0090500
                    endocardial cushion to mesenchymal transition
G0:0033494
                    ferulate metabolic process
G0:0050146
            1
                    nucleoside phosphotransferase activity
G0:0050145
                    nucleoside phosphate kinase activity
G0:0015112
            1
                    nitrate transmembrane transporter activity
G0:0015002
            1
                    heme-copper terminal oxidase activity
                    UFM1 activating enzyme activity
G0:0071566
           1
G0:0019627
                    urea metabolic process
G0:0016137
            1
                    glycoside metabolic process
GO:0019119
            1
                    phenanthrene-9,10-epoxide hydrolase activity
G0:0019115
                    benzaldehyde dehydrogenase activity
G0:0003874
            1
                    6-pyruvoyltetrahydropterin synthase activity
GO:0005895
            1
                    interleukin-5 receptor complex
GO:0051435
                    BH4 domain binding
            1
G0:0005898
            1
                    interleukin-13 receptor complex
G0:0046038
                    GMP catabolic process
G0:0032980
                    keratinocyte activation
            1
G0:0045128
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                    negative regulation of reciprocal meiotic recombination
G0:0033059
            1
                    cellular pigmentation
G0:1900387
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                    negative regulation of cell-cell adhesion by negative regulation of
transcription from RNA polymerase II promoter
G0:0008398 1
                    sterol 14-demethylase activity
GO:0030237
                    female sex determination
G0:0030233
            1
                    deoxynucleotide transmembrane transporter activity
G0:0046030
                    inositol trisphosphate phosphatase activity
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G0:0008397
            1
                    sterol 12-alpha-hydroxylase activity
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G0:1901652
                    response to peptide
G0:0002001
                    renin secretion into blood stream
G0:0010428
                    methyl-CpNpG binding
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G0:0035063
            1
                    nuclear speck organization
G0:0030586
                    [methionine synthase] reductase activity
G0:0061026
                    cardiac muscle tissue regeneration
            1
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G0:0004508
                    steroid 17-alpha-monooxygenase activity
                    vesicle lumen
G0:0031983
G0:0072542
                    protein phosphatase activator activity
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G0:0072541
            1
                    peroxynitrite reductase activity
G0:0006049
                    UDP-N-acetylglucosamine catabolic process
G0:0010743
                    regulation of macrophage derived foam cell differentiation
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G0:0044111
            1
                    development involved in symbiotic interaction
G0:0006040
           1
                    amino sugar metabolic process
G0:0006042
            1
                    glucosamine biosynthetic process
G0:0006043
            1
                    glucosamine catabolic process
G0:0044546
                    NLRP3 inflammasome complex assembly
                    acetylcholine transmembrane transporter activity negative regulation of TRAIL-activated apoptotic signaling pathway
G0:0005277
G0:1903122
G0:1903126
                    negative regulation of centriole-centriole cohesion
G0:0042747
                    circadian sleep/wake cycle, REM sleep
            1
G0:0060434
            1
                    bronchus morphogenesis
G0:0042748
                    circadian sleep/wake cycle, non-REM sleep
G0:0050706
                    regulation of interleukin-1 beta secretion
            1
G0:0050701
            1
                    interleukin-1 secretion
G0:0010273
                    detoxification of copper ion
G0:0031403
                    lithium ion binding
            1
                    regulation of cellular response to insulin stimulus
G0:1900076
            1
                    mitochondrial sorting and assembly machinery complex
GO:0001401
                    negative regulation of developmental growth
GO:0048640
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                    2',3'-cyclic-nucleotide 3'-phosphodiesterase activity
G0:0004113
            1
                    convergent extension involved in somitogenesis
G0:0090246
G0:1902523
                    positive regulation of protein K63-linked ubiquitination
            1
G0:0010646
            1
                    regulation of cell communication
G0:1902524
                    positive regulation of protein K48-linked ubiquitination
                    positive regulation of protein monoubiquitination
G0:1902527
            1
                    VEGF-A-activated receptor activity
G0:0036326
            1
GO:0015100
                    vanadium ion transmembrane transporter activity
                    regulation of glutamate secretion
G0:0014048
            1
G0:0016992
            1
                    lipoate synthase activity
G0:0071951
                    conversion of methionyl-tRNA to N-formyl-methionyl-tRNA
G0:0055082
                    cellular chemical homeostasis
            1
G0:2000042
            1
                    negative regulation of double-strand break repair via homologous
recombination
```

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G0:2000043 1
G0:0038089 1
                    regulation of cardiac cell fate specification
                    positive regulation of cell migration by vascular endothelial growth
G0:0038089
factor signaling pathway
G0:0030366 1
                    molybdopterin synthase activity
G0:0038024
                    cargo receptor activity
                    cardiolipin metabolic process
G0:0032048 1
           1
G0:0008445
                    D-aspartate oxidase activity
G0:0008442
            1
                    3-hydroxyisobutyrate dehydrogenase activity
G0:0008443
           1
                    phosphofructokinase activity
G0:0008441
                    3'(2'),5'-bisphosphate nucleotidase activity
            1
G0:0015633
            1
                    zinc transporting ATPase activity
                    positive regulation of cytokine biosynthetic process
G0:0042108
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G0:0047464
                    heparosan-N-sulfate-glucuronate 5-epimerase activity
G0:0042107
            1
                    cytokine metabolic process
G0:0043519
            1
                    regulation of myosin II filament organization
                    cellular response to staurosporine
G0:0072734
            1
G0:0003025
            1
                    regulation of systemic arterial blood pressure by baroreceptor feedback
G0:0021586
           1
                    pons maturation
GO:0021588
                    cerebellum formation
            1
G0:0003062
            1
                    regulation of heart rate by chemical signal
                    nuclear polyadenylation-dependent mRNA catabolic process
G0:0071042
GO:0071048
                    nuclear retention of unspliced pre-mRNA at the site of transcription
            1
G0:0034213
            1
                    quinolinate catabolic process
G0:0021723
           1
                    medullary reticular formation development
                    thymine metabolic process
G0:0019859
            1
GO:0060016
            1
                    granulosa cell development
                    Sertoli cell fate commitment
G0:0060010
           1
           1
GO:0015961
                    diadenosine polyphosphate catabolic process
G0:0046331
            1
                    lateral inhibition
                    ether lipid metabolic process
G0:0046485
            1
G0:0002779
            1
                    antibacterial peptide secretion
           1
G0:0008532
                    N-acetyllactosaminide beta-1,3-N-acetylglucosaminyltransferase activity
G0:0044691
                    tooth eruption
G0:0003251
                    positive regulation of cell proliferation involved in heart valve
            1
morphogenesis
G0:0009892 1
                    negative regulation of metabolic process
G0:0048262
           1
1
                    determination of dorsal/ventral asymmetry
G0:0031764
                    type 1 galanin receptor binding
G0:0008534
                    oxidized purine nucleobase lesion DNA N-glycosylase activity
           1
GO: 1990182
                    exosomal secretion
GO:0030999
            1
                    linear element assembly
G0:0035964
                    COPI-coated vesicle budding
                    negative regulation of lipid kinase activity
G0:0090219
            1
G0:0060376
            1
                    positive regulation of mast cell differentiation
                    spongiotrophoblast layer developmental growth
G0:0090214
           1
G0:1902731
            1
                    negative regulation of chondrocyte proliferation
G0:0048621
            1
                    post-embryonic digestive tract morphogenesis
G0:0090212
                    negative regulation of establishment of blood-brain barrier
G0:0090210
            1
                    regulation of establishment of blood-brain barrier
G0:0031768
            1
                    ghrelin receptor binding
G0:0035306
                    positive regulation of dephosphorylation
G0:0034127
                    regulation of MyD88-independent toll-like receptor signaling pathway
            1
G0:0042835
            1
                    BRE binding
G0:0045130
                    keratan sulfotransferase activity
G0:0051050
            1
                    positive regulation of transport
G0:0045338
            1
                    farnesyl diphosphate metabolic process
G0:0045136
                    development of secondary sexual characteristics
G0:0000126
                    transcription factor TFIIIB complex
            1
G0:0004321
            1
                    fatty-acyl-CoA synthase activity
G0:0004326
                    tetrahydrofolylpolyglutamate synthase activity
            1
GO:0004325
                    ferrochelatase activity
            1
G0:0004324
            1
                    ferredoxin-NADP+ reductase activity
G0:0072097
                    negative regulation of branch elongation involved in ureteric bud
branching by BMP signaling pathway
G0:0072092
            1
                    ureteric bud invasion
G0:0001544 1
                    initiation of primordial ovarian follicle growth
G0:0008859
                    exoribonuclease II activity
            1
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G0:0006876
                    cellular cadmium ion homeostasis
G0:0043682
                    copper-transporting ATPase activity
G0:0045210
            1
                    FasL biosynthetic process
                    neurotransmitter receptor biosynthetic process
G0:0045212
            1
G0:0045218
                    zonula adherens maintenance
G0:0032606
                    type I interferon production
            1
GO:0001545
            1
                    primary ovarian follicle growth
G0:0042269 1
                    regulation of natural killer cell mediated cytotoxicity
```

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G0:0070946 1
G0:0070947 1
                      neutrophil mediated killing of gram-positive bacterium neutrophil mediated killing of fungus
G0:0031429 1
                      box H/ACA snoRNP complex
            1
                      V1B vasopressin receptor binding
G0:0031895
G0:0097487
             1
                      multivesicular body, internal vesicle
                      positive regulation of phosphate transmembrane transport
GO: 2000187
G0:0031896
            1
1
                      V2 vasopressin receptor binding
G0:0034120
                      positive regulation of erythrocyte aggregation
                      negative regulation of thrombin receptor signaling pathway
G0:0070495
                      negative regulation of leukocyte activation
G0:0002695
             1
G0:0009631
                      cold acclimation
                      response to blue light
G0:0009637
                      regulation of telomere maintenance via telomerase
G0:0032210
                      regulation of nervous system development
G0:0051960
G0:0015350
                      methotrexate transporter activity
                      peptidyl-proline hydroxylation to 3-hydroxy-L-proline
G0:0018400
            1
                      protein C-linked glycosylation via 2'-alpha-mannosyl-L-tryptophan
G0:0018406
G0:0010189
                      vitamin E biosynthetic process
                      smoothened signaling pathway involved in ventral spinal cord patterning regulation of transcription from RNA polymerase II promoter involved in
G0:0021910 1
G0:0021912 1
G0:0021910
spinal cord motor neuron fate specification
G0:0021919 1
G0:0021918 1
                      BMP signaling pathway involved in spinal cord dorsal/ventral patterning regulation of transcription from RNA polymerase II promoter involved in
somatic motor neuron fate commitment
G0:0042163 1
G0:0010987 1
                      interleukin-12 beta subunit binding
                      negative regulation of high-density lipoprotein particle clearance
G0:0090527 1
                      actin filament reorganization
G0:0003842 1
G0:0015130 1
                      1-pyrroline-5-carboxylate dehydrogenase activity
                      mevalonate transmembrane transporter activity
                      positive regulation of cell fate commitment
G0:0010455
             1
G0:0015136
            1
1
                      sialic acid transmembrane transporter activity
G0:0043012
                      regulation of fusion of sperm to egg plasma membrane
G0:2000452 1
                      regulation of CD8-positive, alpha-beta cytotoxic T cell extravasation
                      positive regulation of CD8-positive, alpha-beta T cell extravasation positive regulation of CD8-positive, alpha-beta cytotoxic T cell
G0:2000451 1
G0:2000454 1
G0:2000451
extravasation
G0:0034104 1
G0:0052926 1
                      negative regulation of tissue remodeling {\tt dol-P-Man:Man(6)GlcNAc(2)-PP-Dol\ alpha-1,2-mannosyltransferase\ activity}
G0:0070237 1
                      positive regulation of activation-induced cell death of T cells
G0:0070235 1
G0:0035932 1
                      regulation of activation-induced cell death of T cells
                      aldosterone secretion
                      positive regulation of myeloid cell apoptotic process
GO:0033034
G0:0033030
            1
1
                      negative regulation of neutrophil apoptotic process
G0:2000231
                      positive regulation of pancreatic stellate cell proliferation
                      positive regulation of inner ear receptor cell differentiation
G0:2000982 1
G0:0052929
            1
                      ATP:3'-cytidine-cytidine-tRNA adenylyltransferase activity
GO:1901671
             1
                      positive regulation of superoxide dismutase activity
G0:1901673
                      regulation of spindle assembly involved in mitosis
                      negative regulation of histone H3-K27 acetylation positive regulation of histone H3-K27 acetylation
G0:1901675
G0:1901676
G0:0016119 1
                      carotene metabolic process
G0:0016116 1
G0:0070985 1
                      carotenoid metabolic process
                      TFIIK complex
G0:0042313
                      protein kinase C deactivation
G0:0043397
             1
1
                      regulation of corticotropin-releasing hormone secretion
G0:0046355
                      mannan catabolic process
G0:0042164
                      interleukin-12 alpha subunit binding
G0:0072560
                      type B pancreatic cell maturation
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            1
G0:0000334
                      3-hydroxyanthranilate 3,4-dioxygenase activity
                      regulation of adenylate cyclase activity involved in G-protein coupled
G0:0010578
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receptor signaling pathway
G0:0004098 1
                      cerebroside-sulfatase activity
G0:0048789 1
                      cytoskeletal matrix organization at active zone
G0:0009957
            1
1
                      epidermal cell fate specification
G0:0009956
                      radial pattern formation
G0:0050894
             1
                      determination of affect
                      response to tumor cell intestinal lipid catabolic process
G0:0002347
             1
             1
G0:0044258
GO:1900107
                      regulation of nodal signaling pathway
G0:0031098
                      stress-activated protein kinase signaling cascade
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                      negative regulation of locomotion involved in locomotory behavior
G0:0090327
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G0:0031302
                      intrinsic component of endosome membrane
                      negative regulation of thymidylate synthase biosynthetic process
G0:0050760
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                      regulation of hematopoietic stem cell differentiation
G0:1902036
G0:2000826 1
                      regulation of heart morphogenesis
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G0:0097338 1
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                    response to clozapine
                    negative regulation of androgen receptor activity
                    positive regulation of androgen receptor activity
G0:2000825 1
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                    toxin biosynthetic process
GO:0048790
                    maintenance of presynaptic active zone structure
G0:0045517
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1
                    interleukin-20 receptor binding
G0:0005519
                    cytoskeletal regulatory protein binding
                    regulation of neurotrophin TRK receptor signaling pathway
G0:0051386
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G0:0004170
                    dUTP diphosphatase activity
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G0:0051389
            1
                    inactivation of MAPKK activity
G0:0051388
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                    positive regulation of neurotrophin TRK receptor signaling pathway
G0:0046958
                    nonassociative learning
                    positive regulation of lens epithelial cell proliferation
G0:2001111
G0:0036303
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                    lymph vessel morphogenesis
G0:0036306
                    embryonic heart tube elongation
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                    glutamate-cysteine ligase catalytic subunit binding
G0:0035226
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G0:0018872
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                    arsonoacetate metabolic process
                    metal ion homeostasis
GO:0055065
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G0:0050703
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                    interleukin-1 alpha secretion
                    transforming growth factor beta activation
G0:0036363
G0:0032023
                    trypsinogen activation
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G0:0032029
            1
                    myosin tail binding
G0:0032028
           1
                    myosin head/neck binding
GO:0031547
            1
                    brain-derived neurotrophic factor receptor signaling pathway
G0:0008460
            1
                    dTDP-glucose 4,6-dehydratase activity
G0:0003342
                    proepicardium development
G0:0000921
            1
                    septin ring assembly
G0:0000920
            1
                    cytokinetic cell separation
G0:0097494
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                    regulation of vesicle size
G0:0070002
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                    glutamic-type peptidase activity
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G0:0035101
                    FACT complex
G0:0072719
                    cellular response to cisplatin
                    N-acylneuraminate-9-phosphate synthase activity
GO: 0047444
            1
G0:0047442
            1
                    17-alpha-hydroxyprogesterone aldolase activity
                    formate uptake transmembrane transporter activity
G0:0015659
G0:0036327
                    VEGF-B-activated receptor activity
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G0:1901881
            1
                    positive regulation of protein depolymerization
                    interleukin-18 binding
G0:0042007
GO:0003002
                    regionalization
            1
G0:0043538
            1
                    regulation of actin phosphorylation
                    positive regulation of cell volume
G0:0045795
G0:0045799
                    positive regulation of chromatin assembly or disassembly
            1
G0:0060981
            1
                    cell migration involved in coronary angiogenesis
                    regulation of microvillus length
G0:0032532
G0:0032535
            1
                    regulation of cellular component size
                    7alpha-hydroxycholest-4-en-3-one 12alpha-hydroxylase activity
G0:0033778
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G0:0034276
                    kynurenic acid biosynthetic process
                    interleukin-33 binding
G0:0002113
G0:0021703
                    locus ceruleus development
G0:0030975
                    thiamine binding
G0:0002432
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                    granuloma formation
G0:0046314
            1
                    phosphocreatine biosynthetic process
G0:0046318
                    negative regulation of glucosylceramide biosynthetic process
G0:0051608
            1
                    histamine transport
GO:0002758
            1
                    innate immune response-activating signal transduction
G0:0002759
                    regulation of antimicrobial humoral response
G0:0051169
                    nuclear transport
            1
G0:0006430
            1
                    lysyl-tRNA aminoacylation
G0:0006438
            1
                    valyl-tRNA aminoacylation
GO: 1900827
                    positive regulation of membrane depolarization during cardiac muscle cell
            1
action potential
G0:1990166 1
                    protein localization to site of double-strand break
GO:1990167
           1
1
                    protein K27-linked deubiquitination
G0:0016990
                    arginine deiminase activity
G0:0075521 1
                    microtubule-dependent intracellular transport of viral material towards
nucleus
G0:0019391 1
                    glucuronoside catabolic process
G0:0060565
                    inhibition of mitotic anaphase-promoting complex activity
                    RNA lariat debranching enzyme activity
G0:0008419
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G0:0008418
            1
                    protein-N-terminal asparagine amidohydrolase activity
G0:0030791
                    arsenite methyltransferase activity
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1
GO:0061618
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G0:0030792
                    methylarsonite methyltransferase activity
G0:0035325 1
                    Toll-like receptor binding
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G0:0061628 1
G0:0002399 1
                    H3K27me3 modified histone binding
                    MHC class II protein complex assembly
G0:0086092 1
                    regulation of the force of heart contraction by cardiac conduction
GO:0086097
                    phospholipase C-activating angiotensin-activated signaling pathway
            1
GO:0060695
            1
                    negative regulation of cholesterol transporter activity
                    regulation of cholesterol transporter activity
GO:0060694
                    positive regulation of phospholipid catabolic process
G0:0060697
G0:0060691
                    epithelial cell maturation involved in salivary gland development
                    S-methylmethionine metabolic process
G0:0033477
                    establishment of planar polarity involved in nephron morphogenesis
G0:0072046
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G0:0005169
                    neurotrophin TRKB receptor binding
                    nerve growth factor receptor binding
G0:0005163
                    quercetin 2,3-dioxygenase activity
G0:0008127
G0:0005166
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                    neurotrophin p75 receptor binding
G0:0048757
                    pigment granule maturation
GO:0000105
                    histidine biosynthetic process
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G0:0070821
                    tertiary granule membrane
G0:0042466
                    chemokinesis
G0:0070826
                    paraferritin complex
            1
G0:0047945
                    L-glutamine:pyruvate aminotransferase activity
GO:0070829
                    heterochromatin maintenance
           1
G0:0004346
                    glucose-6-phosphatase activity
                    gluconolactonase activity
G0:0004341
            1
G0:0004343
                    glucosamine 6-phosphate N-acetyltransferase activity
GO:0004342
            1
                    glucosamine-6-phosphate deaminase activity
G0:0035572
                    N-terminal peptidyl-serine dimethylation
                    inner cell mass cellular morphogenesis
G0:0001828
                    negative regulation of cell cycle G2/M phase transition
G0:1902750
G0:0050129
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                    N-formylglutamate deformylase activity
                    N-acylneuraminate-9-phosphatase activity
G0:0050124
G0:0070926
                    regulation of ATP:ADP antiporter activity
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G0:0090158
                    endoplasmic reticulum membrane organization
G0:0031440
                    regulation of mRNA 3'-end processing
                    negative regulation of mRNA 3'-end processing positive regulation of fast-twitch skeletal muscle fiber contraction
G0:0031441
G0:0031448
G0:0050648
                    5(S)-hydroxyperoxy-6E,8Z,11Z,14Z-icosatetraenoic acid binding
G0:0022018
                    lateral ganglionic eminence cell proliferation
           1
G0:0015334
                    high affinity oligopeptide transporter activity
                    receptor serine/threonine kinase binding
G0:0033612
GO:0085018
                    maintenance of symbiont-containing vacuole by host
            1
GO:0004778
            1
                    succinyl-CoA hydrolase activity
G0:0018467
                    formaldehyde dehydrogenase activity
G0:0014820
           1
1
                    tonic smooth muscle contraction
G0:0014822
                    detection of wounding
                    L-alanine catabolic process, by transamination
G0:0019481
           1
G0:0019482
                    beta-alanine metabolic process
G0:0051595
            1
                    response to methylglyoxal
G0:0044140 1
                    negative regulation of growth of symbiont on or near host surface
G0:0044146 1
                   negative regulation of growth of symbiont involved in interaction with
host
G0:0071529 1
                    cementum mineralization
G0:0031857
                    type 1 parathyroid hormone receptor binding
G0:0032427
                    GBD domain binding
G0:2000439
                    positive regulation of monocyte extravasation
           1
G0:2000438
                    negative regulation of monocyte extravasation
GO:0060979
            1
                    vasculogenesis involved in coronary vascular morphogenesis
G0:0019153
                    protein-disulfide reductase (glutathione) activity
G0:0032498
            1
                    detection of muramyl dipeptide
G0:0007066
            1
                    female meiosis sister chromatid cohesion
G0:0032490
                    detection of molecule of bacterial origin
G0:0007060
                    male meiosis chromosome segregation
            1
G0:0007063
            1
                    regulation of sister chromatid cohesion
G0:0032370
                    positive regulation of lipid transport
G0:0043132
                    NAD transport
G0:0071298
            1
                    cellular response to L-ascorbic acid
G0:0033013
                    tetrapyrrole metabolic process
G0:0033011
                    perinuclear theca
            1
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G0:0021934
                    hindbrain tangential cell migration
G0:0030895
                    apolipoprotein B mRNA editing enzyme complex
G0:0043134
                    regulation of hindgut contraction
            1
G0:1901581 1
                    negative regulation of telomeric RNA transcription from RNA pol II
promoter
G0:0047783
                    corticosterone 18-monooxygenase activity
G0:0016901 1
                    oxidoreductase activity, acting on the CH-OH group of donors, quinone or
similar compound as acceptor
```

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G0:0043492 1
G0:0060961 1
                     ATPase activity, coupled to movement of substances phospholipase D inhibitor activity
G0:0047166 1
                     1-alkenylglycerophosphoethanolamine 0-acyltransferase activity
G0:0050080
            1
                     malonyl-CoA decarboxylase activity
G0:0006225
             1
                     UDP biosynthetic process
                     dUMP biosynthetic process
G0:0006226
           1
G0:0046789
                     host cell surface receptor binding
G0:0071393
            1
                     cellular response to progesterone stimulus
G0:0006083
                     acetate metabolic process
G0:1900122 1
G0:1900128 1
                     positive regulation of receptor binding
                     regulation of G-protein activated inward rectifier potassium channel
activity
G0:0030504
                     inorganic diphosphate transmembrane transporter activity
G0:0031858
            1
                     pituitary adenylate cyclase-activating polypeptide receptor binding
G0:0070869
            1
                     heterochromatin assembly involved in chromatin silencing
G0:0031328
                     positive regulation of cellular biosynthetic process
            1
G0:0031851
            1
                     kappa-type opioid receptor binding
                     regulation of cellular metabolic process
G0:0031323
            1
G0:1903168
                     positive regulation of pyrroline-5-carboxylate reductase activity
            1
GO:1903169
            1
                     regulation of calcium ion transmembrane transport
                     nephric duct development
G0:0072176
G0:0072175
                     epithelial tube formation
            1
G0:0072173
            1
                     metanephric tubule morphogenesis
G0:0060730
            1
                     regulation of intestinal epithelial structure maintenance
            1
                     vascular transport
G0:0010232
G0:0090308
            1
                     regulation of methylation-dependent chromatin silencing
                     positive regulation of collagen binding
G0:0033343 1
                     mesenchymal-epithelial cell signaling involved in prostate gland
G0:0060739 1
development
G0:0001193 1
                     maintenance of transcriptional fidelity during DNA-templated transcription
elongation from RNA polymerase II promoter
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                     leak channel activity
G0:0022848
                     acetylcholine-gated cation channel activity
                     methylenetetrahydrofolate dehydrogenase [NAD(P)+] activity
GO:0004486
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                     methylenetetrahydrofolate dehydrogenase (NAD+) activity
G0:0004487
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G0:0004484
                     mRNA quanylyltransferase activity
                    mRNA (guanine-N7-)-methyltransferase activity mRNA (nucleoside-2'-0-)-methyltransferase activity
G0:0004482
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G0:0004489
                     methylenetetrahydrofolate reductase (NAD(P)H) activity
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                     negative regulation of collateral sprouting in absence of injury
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                     positive regulation of axon extension involved in regeneration
G0:0005914
                    spot adherens junction activation of immune response
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                     negative regulation of eosinophil activation
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                     regulation of endocytic recycling
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                     collagen type III trimer
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G0:0000719
                     photoreactive repair
G0:0034224
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                     cellular response to zinc ion starvation
GO:0000711
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                     meiotic DNA repair synthesis
GO:0000717
                     nucleotide-excision repair, DNA duplex unwinding
G0:0004151
                     dihydroorotase activity
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                     sulfite oxidase activity
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G0:0045403
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                     UDP-D-xylose biosynthetic process
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                     superior vena cava morphogenesis
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                     positive regulation of mitochondrial DNA metabolic process
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                     positive regulation of oxygen metabolic process
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                     ammon gyrus development
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                     macromolecule modification
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                     regulation of lung goblet cell differentiation
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G0:1901248
                     positive regulation of lung ciliated cell differentiation
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nephron morphogenesis
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immunoglobulin receptor
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                     immune response to tumor cell
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G0:0046370
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                     fucosidase activity
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G0:0002732
G0:0002731
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                     negative regulation of vascular wound healing
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G0:0035696
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G0:0035695
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                     bud dilation involved in lung branching
G0:0060503
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G0:0060502
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                     positive regulation of immunoglobulin production in mucosal tissue
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G0:0035349
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                     coenzyme A transmembrane transport
G0:0052829
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                     inositol-1,3,4-trisphosphate 1-phosphatase activity
G0:0042501
                     serine phosphorylation of STAT protein
                     inositol hexakisphosphate 2-phosphatase activity
G0:0052826
                     inositol-1,3,4,5,6-pentakisphosphate 1-phosphatase activity
G0:0052825
G0:0003429
                     growth plate cartilage chondrocyte morphogenesis
G0:0006148
                     inosine catabolic process
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G0:0009855
                     determination of bilateral symmetry
G0:0043111
                     replication fork arrest
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G0:0043112
                     receptor metabolic process
G0:0006145
                     purine nucleobase catabolic process
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                     quanine catabolic process
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                     oncostatin-M receptor binding
G0:0005140
                     interleukin-9 receptor binding
                     interleukin-10 receptor binding
GO:0005141
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G0:0005142
            1
                     interleukin-11 receptor binding
                     glycerol-3-phosphate dehydrogenase [NAD+] activity
GO:0004367
G0:0070846
                     Hsp90 deacetylation
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                     glutathione-disulfide reductase activity
G0:0004361
                     glutaryl-CoA dehydrogenase activity
                     glycine N-choloyltransferase activity
G0:0047963
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                     glutamine-tRNA ligase activity
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G0:0047969
                     glyoxylate oxidase activity
                     BMP signaling pathway involved in mesodermal cell fate specification
GO:0060803
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                     positive regulation of choline O-acetyltransferase activity
G0:1902771
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                     regulation of aspartic-type endopeptidase activity involved in amyloid
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                     positive regulation of early endosome to recycling endosome transport
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                    positive regulation of dendritic spine maintenance
G0:1902953 1
                    positive regulation of ER to Golgi vesicle-mediated transport
G0:0008817
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                    cob(I)yrinic acid a,c-diamide adenosyltransferase activity
G0:0008812
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                    choline dehydrogenase activity
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G0:0042996
                    regulation of Golgi to plasma membrane protein transport
G0:0061196
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                    fungiform papilla development
G0:0008700
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G0:0008705
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                    methionine synthase activity
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                    NADPH:sulfur oxidoreductase activity
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                    ribonuclease P RNA binding
                    Rho GDP-dissociation inhibitor binding
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G0:0008709
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development
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                    procollagen galactosyltransferase activity
GO:0050211
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                    modulation by symbiont of host I-kappaB kinase/NF-kappaB cascade
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G0:0014805
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                    smooth muscle adaptation
G0:0014804
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                    terminal cisterna lumen
G0:0060887
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                    limb epidermis development
                    response to platelet-derived growth factor
G0:0036119
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G0:0035248
G0:0001851
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                    complement component C3b binding
                    very long-chain fatty-acyl-CoA metabolic process
G0:0036111
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G0:0036112
                    medium-chain fatty-acyl-CoA metabolic process
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                    medium-chain fatty-acyl-CoA catabolic process
G0:0036114
                    long-chain fatty-acyl-CoA catabolic process
G0:0036116
G0:2000417
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GO:2000415
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G0:2000142
                    regulation of DNA-templated transcription, initiation
G0:2000144
                    positive regulation of DNA-templated transcription, initiation
            1
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G0:2000149
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ventricular septum morphogenesis
G0:0003205 1
G0:0001207 1
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                    histone displacement
G0:0032960 1
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G0:0001206 1
                    RNA polymerase II distal enhancer sequence-specific DNA binding
transcription factor activity involved in negative regulation of transcription
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                    sn-glycerol-3-phosphate:ubiquinone oxidoreductase activity
G0:0052597
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                    diamine oxidase activity
G0:0046105
                    thymidine biosynthetic process
                    histamine oxidase activity
DNA replication, Okazaki fragment processing
G0:0052598
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G0:0033567
G0:0033566
                    gamma-tubulin complex localization
G0:0035973
                    aggrephagy
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                    peptidyl-histidine dephosphorylation
G0:0035978
                    histone H2A-S139 phosphorylation
                    interleukin-15 production interleukin-22 binding
G0:0032618
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G0:0042017
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                    protein localization to cell cortex
G0:0033699
                    DNA 5'-adenosine monophosphate hydrolase activity
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                    3-hydroxyacyl-[acyl-carrier-protein] dehydratase activity
                    interleukin-12 production
GO:0032615
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G0:0052106
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G0:0048213
                    Golgi vesicle prefusion complex stabilization
                    polyphosphate metabolic process
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                    developmental induction
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                    guanylate kinase-associated protein clustering
GO:0097117
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G0:0097111 1
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inhibition
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                    adrenergic receptor binding
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                    regulation of L-arginine import
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GO:0005775
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mediator activity
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                    negative regulation of establishment of endothelial barrier
                    positive regulation of establishment of endothelial barrier
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                    negative regulation of intrinsic apoptotic signaling pathway in response
to osmotic stress by p53 class mediator
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definitive endodermal cell fate specification
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factor stimulus
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to endoplasmic reticulum stress
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                    urokinase plasminogen activator receptor activity
G0:0055024
                    regulation of cardiac muscle tissue development
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                     negative regulation of cytokine activity
G0:0060302
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G0:0055020
                    positive regulation of cardiac muscle fiber development
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                    phosphatidylethanolamine N-methyltransferase activity
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                     glycerate dehydrogenase activity
G0:0004607
                    phosphatidylcholine-sterol O-acyltransferase activity
GO:0004603
                     phenylethanolamine N-methyltransferase activity
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                     ribosomal S6-glutamic acid ligase activity
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G0:0018160
                     peptidyl-pyrromethane cofactor linkage
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G0:0045423
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biosynthetic process
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G0:0019783
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G0:0019780 1
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development
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                    regulation of endothelial cell apoptotic process
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                     facial nerve development
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GO:0010770
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                    apical lamina of hyaline layer
G0:0033737
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G0:2000502
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class Ib
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in cardiac conduction
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                    negative regulation of T cell mediated immunity
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                    urokinase plasminogen activator signaling pathway
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                     regulation of acetylcholine metabolic process
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cells
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                    optic cup structural organization
                     scavenger receptor binding
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                     granulocyte macrophage colony-stimulating factor receptor binding
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                    valine-tRNA ligase activity
                    regulation of protein exit from endoplasmic reticulum
GO:0070861
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G0:0060381
                     positive regulation of single-stranded telomeric DNA binding
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G0:0010848
            1
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G0:0035262
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                    purine nucleoside monophosphate catabolic process
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                    response to cesium ion
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G0:0044736
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                    acid-sensing ion channel activity
                    steroid 7-alpha-hydroxylase activity
G0:0008387
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G0:0008386
                    cholesterol monooxygenase (side-chain-cleaving) activity
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                    dGTPase activity
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G0:0014861 1
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potential
G0:0006507
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tube closure
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                    beta-ureidopropionase activity
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G0:2000162 1
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tract morphogenesis
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                    positive regulation of neurotrophin production
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                    cerebellar granular layer maturation
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                    positive regulation of hydrogen peroxide-mediated programmed cell death
G0:1901300
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                    growth involved in heart morphogenesis
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                    corticospinal neuron axon guidance through spinal cord
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                    interleukin-8 production
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                    interleukin-3 production
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G0:0047290
                    (alpha-N-acetylneuraminyl-2,3-beta-galactosyl-1,3)-N-acetyl-
            1
galactosaminide 6-alpha-sialyltransferase activity
                    entry of symbiont into host cell by promotion of host phagocytosis
G0:0052066 1
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                    induction by symbiont of defense-related host nitric oxide production
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                    cyclic nucleotide catabolic process
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                    regulation of pentose-phosphate shunt
GO:0043456
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G0:0016429
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                    tRNA (adenine-N1-)-methyltransferase activity
                    tRNA (cytosine) methyltransferase activity
G0:0016427
G0:0070526
                    threonylcarbamoyladenosine biosynthetic process
            1
G0:0016422
            1
                    mRNA (2'-0-methyladenosine-N6-)-methyltransferase activity
G0:0070625
                    zymogen granule exocytosis
                    ERCC4-ERCC1 complex
GO:0070522
            1
                    pristanate-CoA ligase activity
GO:0070251
            1
G0:0070252
                    actin-mediated cell contraction
G0:0070254
            1
                    mucus secretion
G0:0070627
            1
                    ferrous iron import
G0:0070524 1
                    11-beta-hydroxysteroid dehydrogenase (NADP+) activity
```