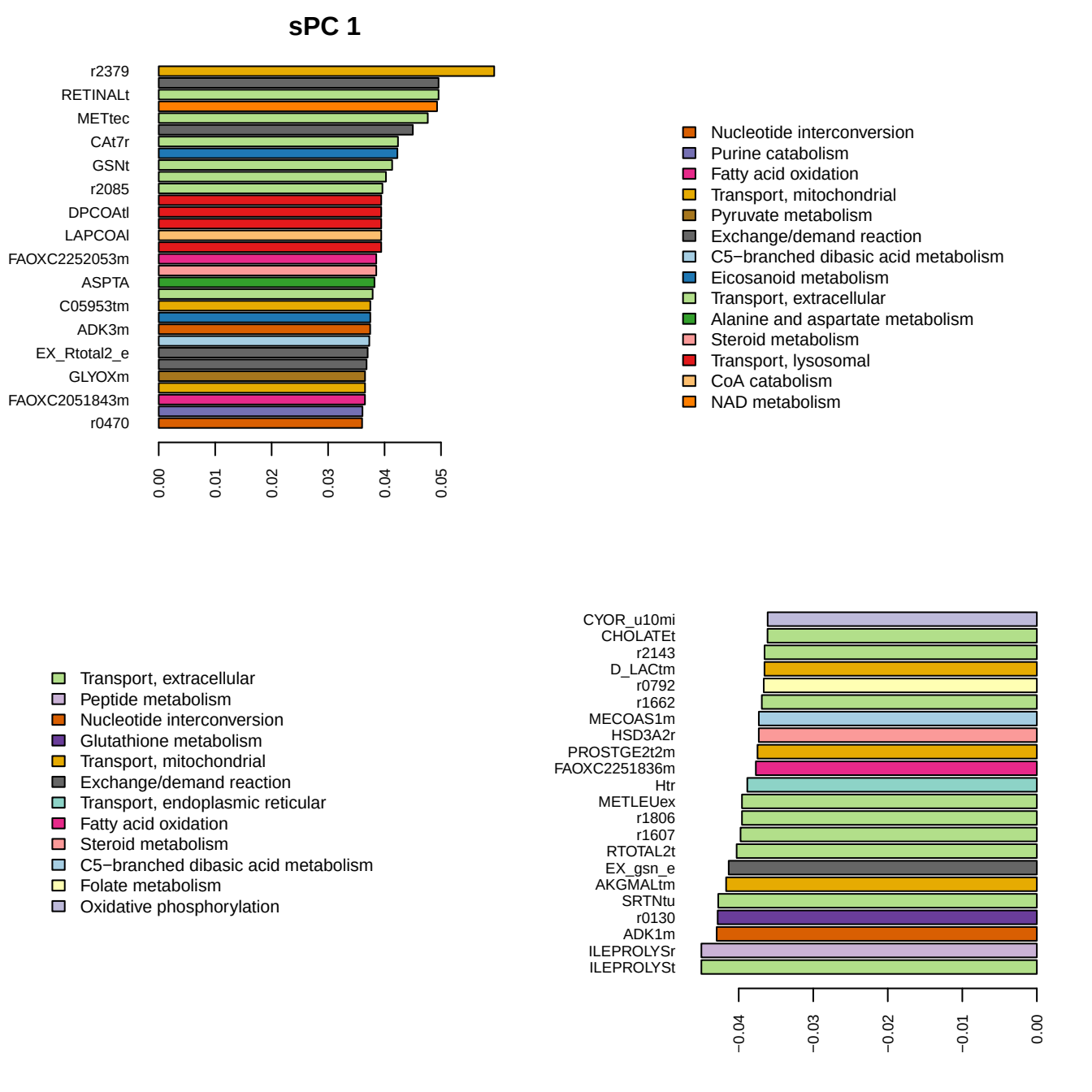
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METtec
CAt7r
GSNt
r2085
DPCOAtl
LAPCOAl
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ASPTA
C05953tm
ADK3m
EX_Rtotal2_e
GLYOXm
FAOXC2051843m
r0470
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0.01
0.02
0.03
0.04
0.05
Nucleotide interconversion
Purine catabolism
Fatty acid oxidation
Transport, mitochondrial
Pyruvate metabolism
Exchange/demand reaction
C5−branched dibasic acid metabolism
Eicosanoid metabolism
Transport, extracellular
Alanine and aspartate metabolism
Steroid metabolism
Transport, lysosomal
CoA catabolism
NAD metabolism
Transport, extracellular
Peptide metabolism
Nucleotide interconversion
Glutathione metabolism
Transport, mitochondrial
Exchange/demand reaction
Transport, endoplasmic reticular
Fatty acid oxidation
Steroid metabolism
C5−branched dibasic acid metabolism
Folate metabolism
Oxidative phosphorylation
CYOR_u10mi
CHOLATEt
r2143
D_LACtm
r0792
r1662
MECOAS1m
HSD3A2r
PROSTGE2t2m
FAOXC2251836m
Htr
METLEUex
r1806
r1607
RTOTAL2t
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AKGMALtm
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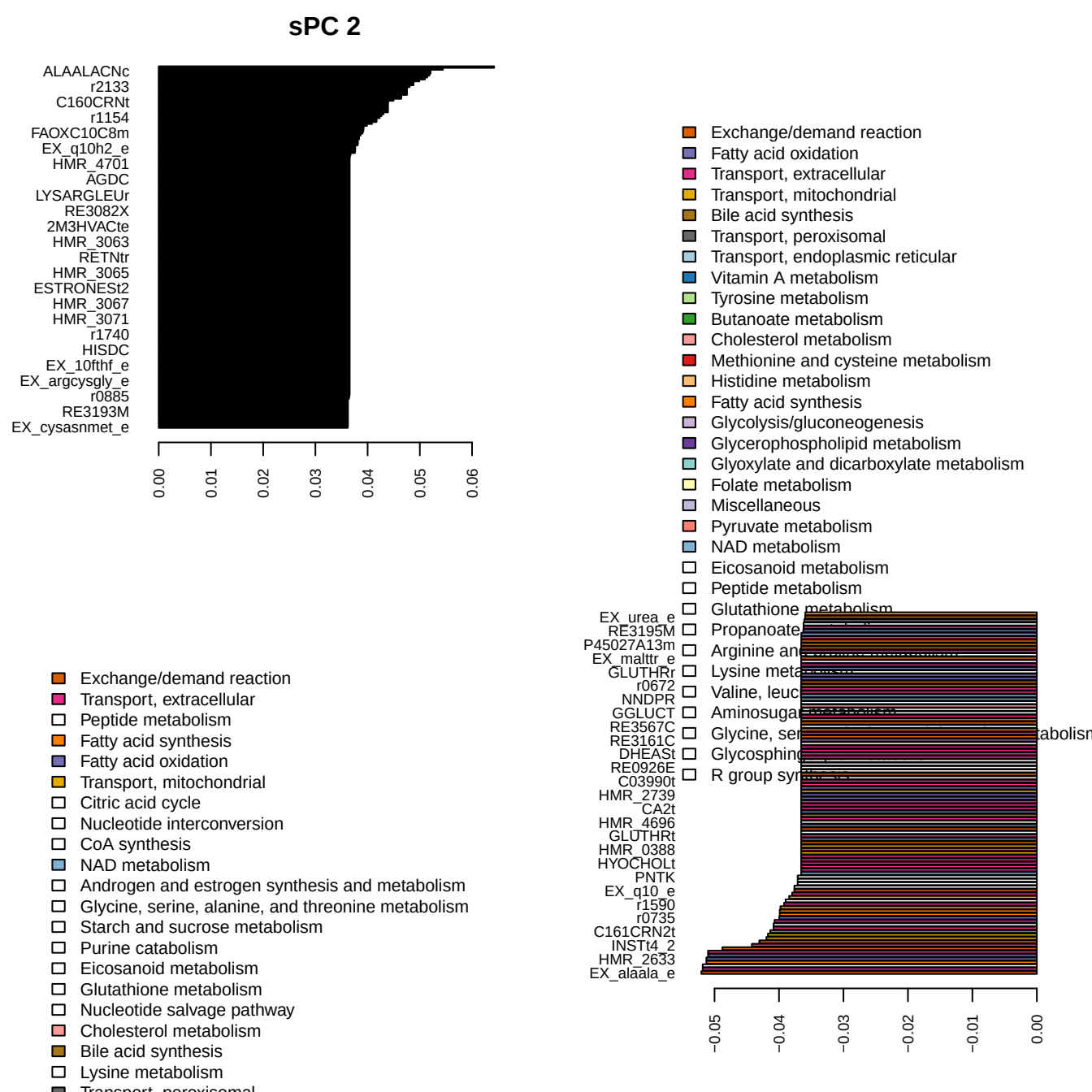
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C160CRNt
r1154
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HMR_4701
AGDC
LYSARGLEUr
RE3082X
2M3HVACte
HMR_3063
RETNtr
HMR_3065
ESTRONESt2
HMR_3067
HMR_3071
r1740
HISDC
EX_10fthf_e
EX_argcysgly_e
r0885
RE3193M
EX_cysasnmet_e
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0.01
0.02
0.03
0.04
0.05
0.06
Exchange/demand reaction
Fatty acid oxidation
Transport, extracellular
Transport, mitochondrial
Bile acid synthesis
Transport, peroxisomal
Transport, endoplasmic reticular
Vitamin A metabolism
Tyrosine metabolism
Butanoate metabolism
Cholesterol metabolism
Methionine and cysteine metabolism
Histidine metabolism
Fatty acid synthesis
Glycolysis/gluconeogenesis
Glycerophospholipid metabolism
Glyoxylate and dicarboxylate metabolism
Folate metabolism
Miscellaneous
Pyruvate metabolism
NAD metabolism
Eicosanoid metabolism
Peptide metabolism
Glutathione metabolism
EX_urea_e
RE3195M
P45027A13m
EX_malttr_e
GLUTHRr
r0672
NNDPR
GGLUCT
RE3567C
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DHEASt
RE0926E
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CA2t
HMR_4696
GLUTHRt
HMR_0388
HYOCHOLt
PNTK
EX_q10_e
r1590
r0735
C161CRN2t
INSTt4_2
HMR_2633
EX_alaala_e
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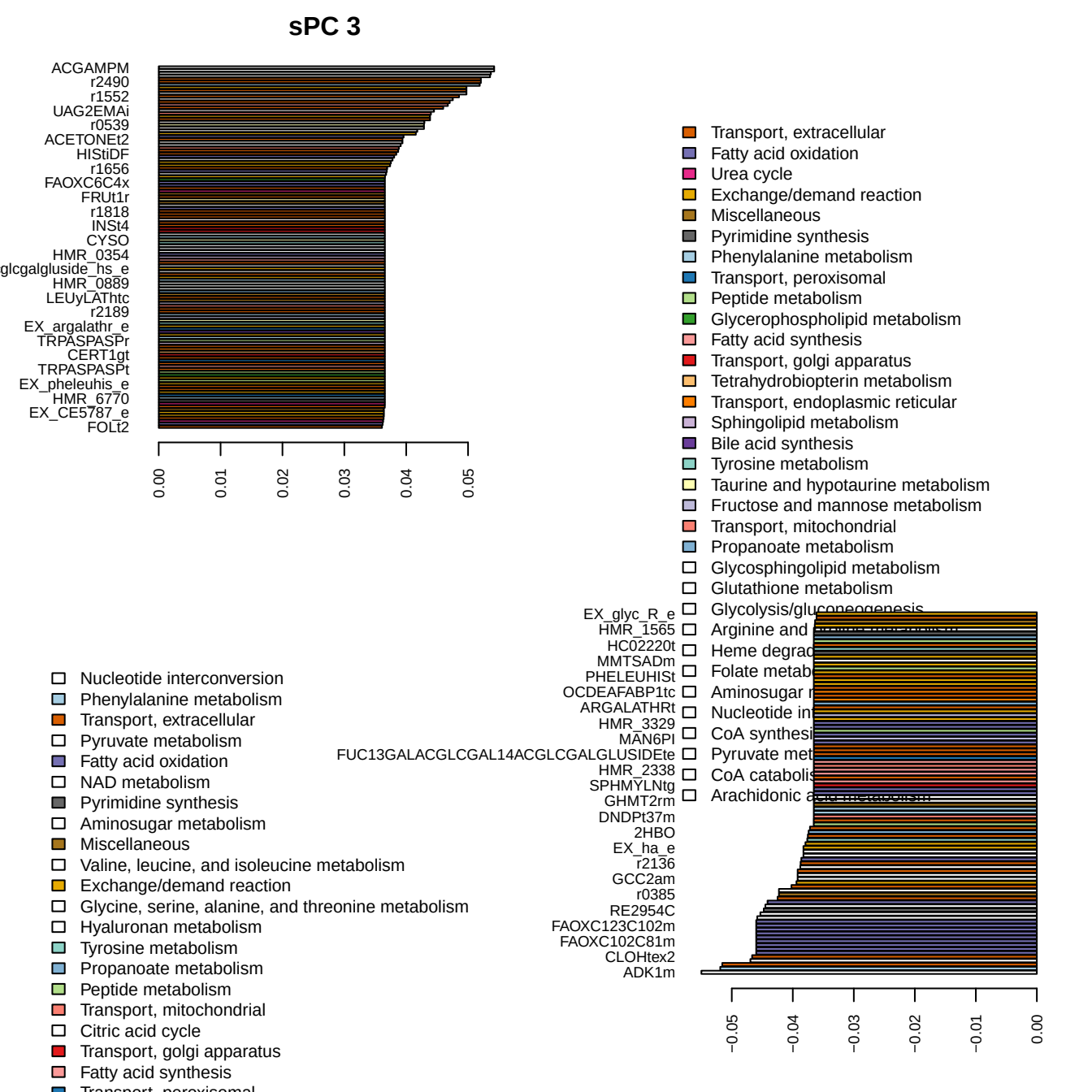
Exchange/demand reaction
Transport, extracellular
Peptide metabolism
Fatty acid synthesis
Fatty acid oxidation
Transport, mitochondrial
Citric acid cycle
Nucleotide interconversion
CoA synthesis
NAD metabolism
Androgen and estrogen synthesis and metabolism
Glycine, serine, alanine, and threonine metabolism
Starch and sucrose metabolism
Purine catabolism
Eicosanoid metabolism
Glutathione metabolism
Nucleotide salvage pathway
Cholesterol metabolism
Bile acid synthesis
Lysine metabolism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r1552
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r0539
ACETONEt2
HIStiDF
r1656
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FRUt1r
r1818
INSt4
CYSO
HMR_0354
glcgalgluside_hs_e
HMR_0889
LEUyLAThtc
r2189
EX_argalathr_e
TRPASPASPr
CERT1gt
TRPASPASPt
EX_pheleuhis_e
HMR_6770
EX_CE5787_e
FOLt2
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0.01
0.02
0.03
0.04
0.05
Transport, extracellular
Fatty acid oxidation
Urea cycle
Exchange/demand reaction
Miscellaneous
Pyrimidine synthesis
Phenylalanine metabolism
Transport, peroxisomal
Peptide metabolism
Glycerophospholipid metabolism
Fatty acid synthesis
Transport, golgi apparatus
Tetrahydrobiopterin metabolism
Transport, endoplasmic reticular
Sphingolipid metabolism
Bile acid synthesis
Tyrosine metabolism
Taurine and hypotaurine metabolism
Fructose and mannose metabolism
Transport, mitochondrial
Propanoate metabolism
Glycosphingolipid metabolism
Glutathione metabolism
Glycolysis/gluconeogenesis
Nucleotide interconversion
Phenylalanine metabolism
Transport, extracellular
Pyruvate metabolism
Fatty acid oxidation
NAD metabolism
Pyrimidine synthesis
Aminosugar metabolism
Miscellaneous
Valine, leucine, and isoleucine metabolism
Exchange/demand reaction
Glycine, serine, alanine, and threonine metabolism
Hyaluronan metabolism
Tyrosine metabolism
Propanoate metabolism
Peptide metabolism
Transport, mitochondrial
Citric acid cycle
Transport, golgi apparatus
Fatty acid synthesis
EX_glyc_R_e
HMR_1565
HC02220t
MMTSADm
PHELEUHISt
OCDEAFABP1tc
ARGALATHRt
HMR_3329
MAN6PI
FUC13GALACGLCGAL14ACGLCGALGLUSIDEte
HMR_2338
SPHMYLNtg
GHMT2rm
DNDPt37m
2HBO
EX_ha_e
r2136
GCC2am
r0385
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FAOXC123C102m
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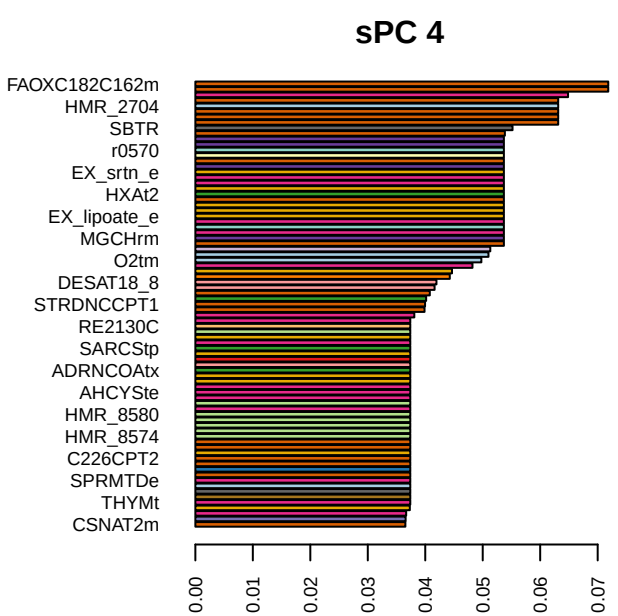
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ADRNCOAtx
AHCYSte
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HMR_8574
C226CPT2
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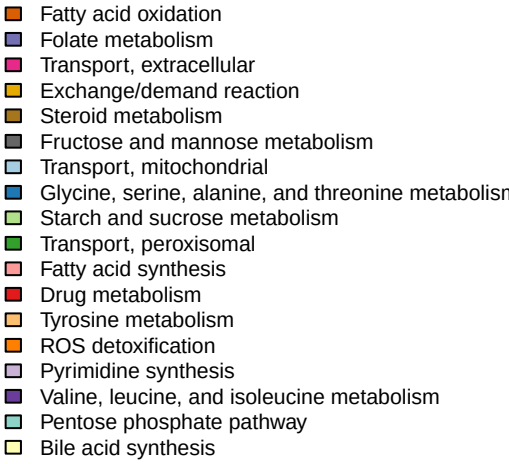
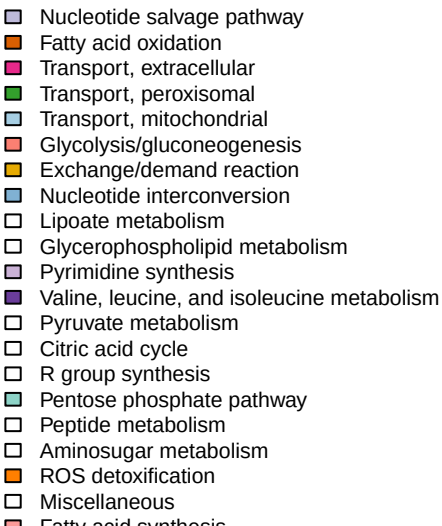
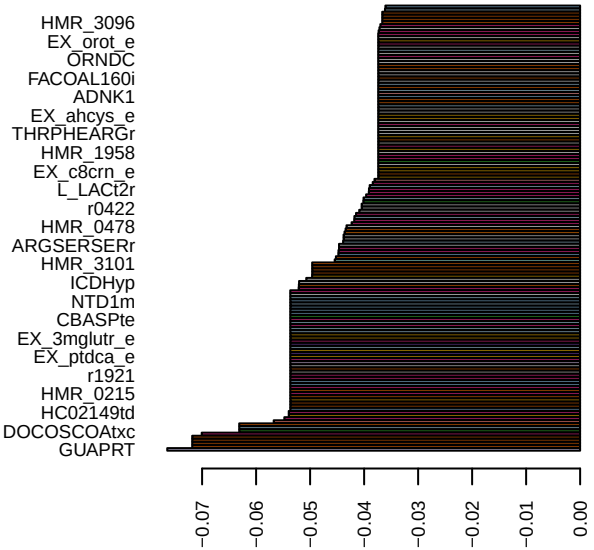

Fatty acid oxidation
Folate metabolism
Transport, extracellular
Exchange/demand reaction
Steroid metabolism
Fructose and mannose metabolism
Transport, mitochondrial
Glycine, serine, alanine, and threonine metabolism
Starch and sucrose metabolism
Transport, peroxisomal
Fatty acid synthesis
Drug metabolism
Tyrosine metabolism
ROS detoxification
Pyrimidine synthesis
Valine, leucine, and isoleucine metabolism
Pentose phosphate pathway
Bile acid synthesis


Nucleotide salvage pathway
Fatty acid oxidation
Transport, extracellular
Transport, peroxisomal
Transport, mitochondrial
Glycolysis/gluconeogenesis
Exchange/demand reaction
Nucleotide interconversion
Lipoate metabolism
Glycerophospholipid metabolism
Pyrimidine synthesis
Valine, leucine, and isoleucine metabolism
Pyruvate metabolism
Citric acid cycle
R group synthesis
Pentose phosphate pathway
Peptide metabolism
Aminosugar metabolism
ROS detoxification
Miscellaneous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EX_orot_e
ORNDC
FACOAL160i
ADNK1
EX_ahcys_e
THRPHEARGr
HMR_1958
EX_c8crn_e
L_LACt2r
r0422
HMR_0478
ARGSERSERr
HMR_3101
ICDHyp
NTD1m
CBASPte
EX_3mglutr_e
EX_ptdca_e
r1921
HMR_0215
HC02149td
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GUAPRT
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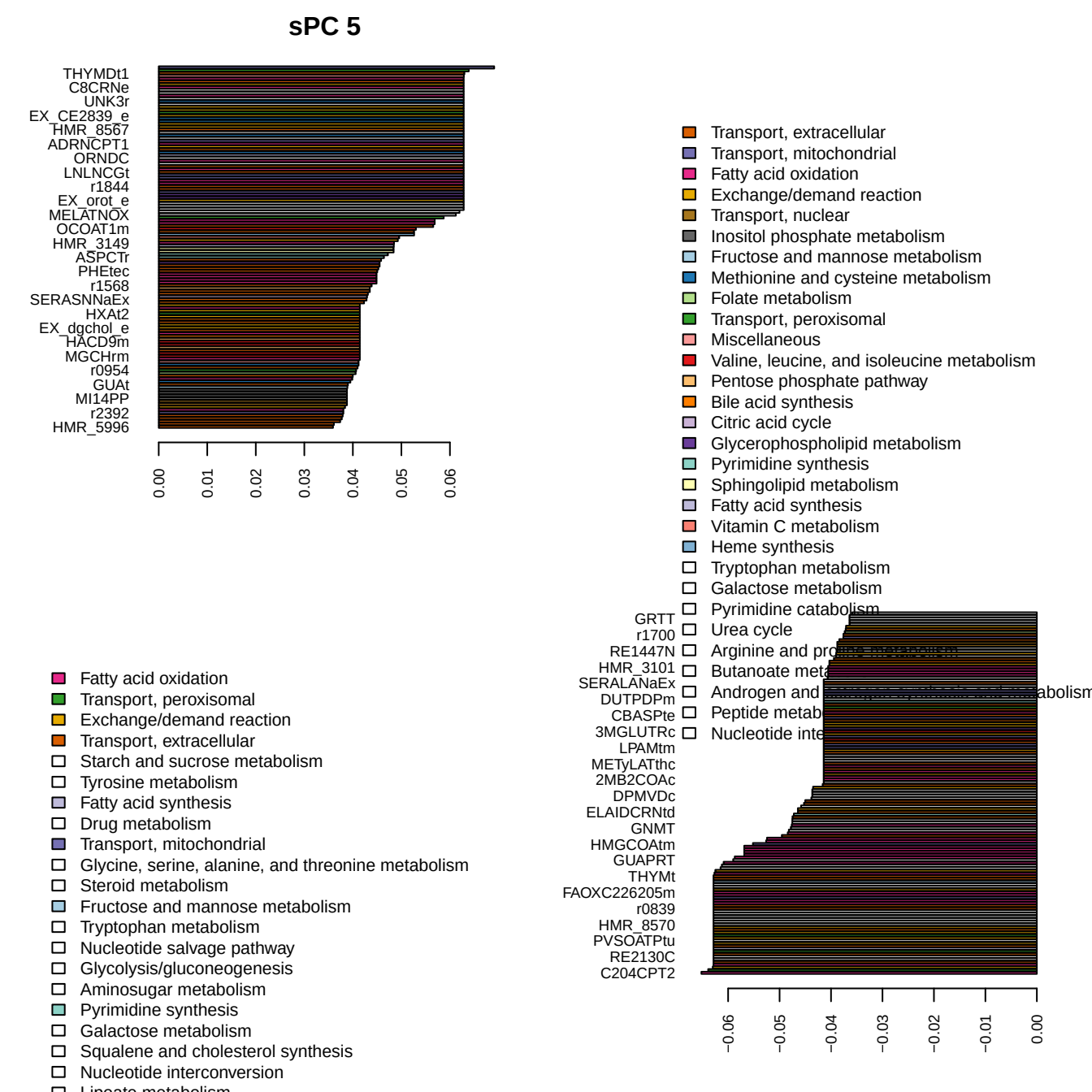
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UNK3r
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ORNDC
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MELATNOX
OCOAT1m
HMR_3149
ASPCTr
PHEtec
r1568
SERASNNaEx
HXAt2
EX_dgchol_e
HACD9m
MGCHrm
r0954
GUAt
MI14PP
r2392
HMR_5996
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0.02
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0.05
0.06
Transport, extracellular
Transport, mitochondrial
Fatty acid oxidation
Exchange/demand reaction
Transport, nuclear
Inositol phosphate metabolism
Fructose and mannose metabolism
Methionine and cysteine metabolism
Folate metabolism
Transport, peroxisomal
Miscellaneous
Valine, leucine, and isoleucine metabolism
Pentose phosphate pathway
Bile acid synthesis
Citric acid cycle
Glycerophospholipid metabolism
Pyrimidine synthesis
Sphingolipid metabolism
Fatty acid synthesis
Vitamin C metabolism
Heme synthesis
Tryptophan metabolism
Galactose metabolism
Pyrimidine catabolism
Urea cycle
Arginine and pro
Butanoate meta
Androgen and
Peptide metab
Nucleotide inte
GRTT
r1700
RE1447N
HMR_3101
SERALANaEx
DUTPDPm
CBASPte
3MGLUTRc
LPAMtm
METyLATthc
2MB2COAc
DPMVDc
ELAIDCRNtd
GNMT
HMGCOAtm
GUAPRT
THYMt
FAOXC226205m
r0839
HMR_8570
PVSOATPtu
RE2130C
C204CPT2
−0.06
−0.05
−0.04
−0.03
−0.02
−0.01
0.00
Fatty acid oxidation
Transport, peroxisomal
Exchange/demand reaction
Transport, extracellular
Starch and sucrose metabolism
Tyrosine metabolism
Fatty acid synthesis
Drug metabolism
Transport, mitochondrial
Glycine, serine, alanine, and threonine metabolism
Steroid metabolism
Fructose and mannose metabolism
Tryptophan metabolism
Nucleotide salvage pathway
Glycolysis/gluconeogenesis
Aminosugar metabolism
Pyrimidine synthesis
Galactose metabolism
Squalene and cholesterol synthesis
Nucleotide interconversion