



开放的资源数据库

IMP整合植物资源数据库





Statistics IGV Browser Download Feedback Help

Integrated Medicinal Plantomics

IMP: Bridging the Gap for Medicinal Plant Genomics

Synthetic biology medicine is built on the molecular metabolic pathways of herbal plants. Finding functional genes and assembling the metabolic pathways requires a number of critical steps, one of which is the comparative genome and transcriptome analysis. We developed IMP as an integrated platform for organizing, analyzing, and sharing omics data of medicinal plantomics with 10 computation modules to deal with the volume of omics data and the complexity of analysis operations. Typing in either IDs, function descriptions, or pathway annotations would generate a list of matched genes. Users could choose several genes and send them to various programs, including (1) Gene expression profile module to compare their transcriptome profiles across various organs or treatment conditions to screen key functional genes, (2) Gene fishing to look for additional genes with similar expression profiles that may work together. (3) Gene map viewer to see if these genes could form gene clusters to be involved in one metabolite pathway, (4) Multiple sequence alignments to locate conserved catalytic sites for metabolite synthesis, (5) Sequences fetch to download related sequences, (6) Primer design to produce primers for experimental verification, and (7) BLAST to compare their hits across species. Users might also create an in-silico project to resolve the medicinal component synthetic pathways utilizing (8) DE gene analysis model to perform cross-organ comparison or along-inducing comparison. The identified differentially expressed genes could be used for function discovery in (9) GO/KEGG

Andrographis paniculata

cytochrome p450



25,865,814





2,434

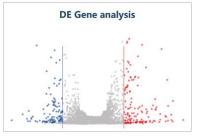


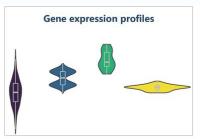


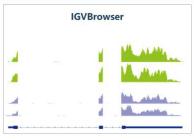
127,498,390,992 Genome bases

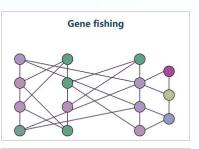
IMP整合植物资源数据库功能展示

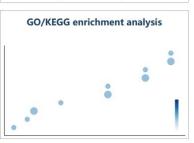


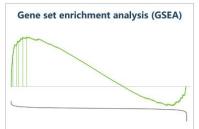


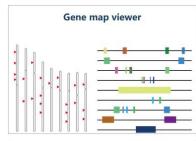




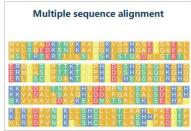




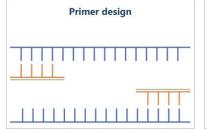
















Ensembl (http://www.ensembl.org/index.html?redirect=no)





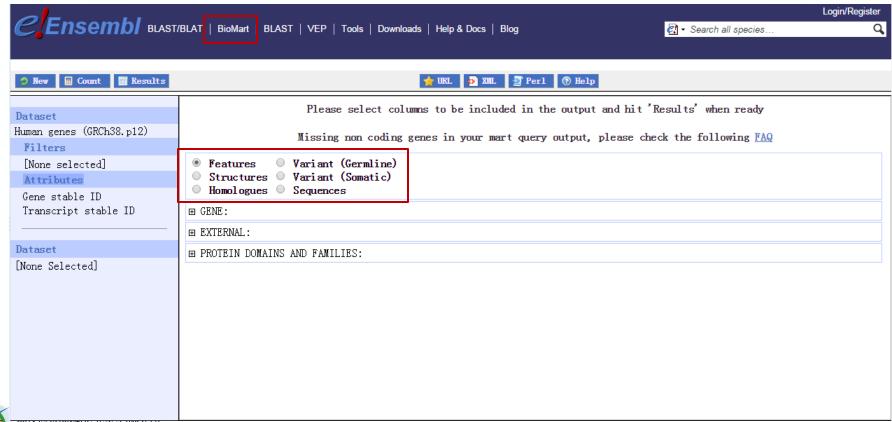
Shov	w 10 🔻 entries	5				Show/hide	columns						F	ilter		
*	Species	DNA (FASTA)	cDNA (FASTA)	CDS (FASTA)	ncRNA (FASTA)	Protein sequence (FASTA)	Annotated sequence (EMBL)	Annotated sequence (GenBank)	Gene sets	Whole databases	Variation (GVF)	Variation (VCF)	Variation (VEP)	Regulation (GFF)	Data files	BAM/BigWig
Υ	Human Homo sapiens	FASTA P	FASTA ₽	FASTA ₽	FASTA ₽	FASTA ₪	<u>EMBL</u> ₽	GenBank &	GTF _ਵ ਹ GFF3 ਵਹ	<u>MySQL</u> ₽	<u>GVF</u> ₽	<u>VCF</u> ₽	<u>VEP</u> ₽	Regulation & (GFF)	Regulati on data files &	BAM/BigWig &
Υ	Mouse Mus musculus	<u>FASTA</u> ₽	FASTA ₽	FASTA ₽	FASTA ₽	<u>FASTA</u> ₽	<u>EMBL</u> ₽	GenBank&	GTF & GFF3 &	MySQL ₽	<u>GVF</u> ₽	<u>VCF</u> ₽	<u>VEP</u> ₽	Regulation & (GFF)	Regulati on data files &	BAM/BigWig&
Υ	Zebrafish Danio rerio	FASTA®	FASTA ₽	FASTA ₽	FASTA ₽	<u>FASTA</u> ₽	EMBL&	<u>GenBank</u> ₽	GTF ଜ GFF3 ଜ	<u>MySQL</u> ₽	<u>GVF</u> ₽	<u>VCF</u> ₽	<u>VEP</u> ₽	-	-	BAM/BigWig &
	Alpaca Vicugna pacos	FASTA ₽	FASTA ₽	FASTA ₽	FASTA ₽	<u>FASTA</u> ₽	<u>EMBL</u> ₽	GenBank®	GTF & GFF3 &	MySQL ₽	-	-	<u>VEP</u> ₽	-	-	-
	Amazon molly Poecilia formosa	<u>FASTA</u> ₽	FASTA®	FASTA®	FASTA ₽	<u>FASTA</u> ₽	<u>EMBL</u> ₽	GenBank®	<u>GTF</u> ଟ୍ର <u>GFF3</u> ଟ୍ର	MySQL ₽	-	-	<u>VEP</u> ๗	-	-	BAM/BigWig &
	Anole lizard Anolis carolinensis	FASTA ₽	FASTA ₽	FASTA ₽	FASTA ₽	<u>FASTA</u> ₽	<u>EMBL</u> ₽	GenBank&	<u>GTF</u> & GFF3&	MySQL ₽	-	-	<u>VEP</u> ₽	-	-	BAM/BigWig &
	Armadillo Dasypus	FASTA ₽	<u>FASTA</u> ₽	FASTA®	FASTA®	<u>FASTA</u> ₽	<u>EMBL</u> ₽	GenBank &	GTF교 GFF3교	<u>MySQL</u> ₽	-	-	<u>VEP</u> ₽	-	-	BAM/BigWig &



ftp://ftp.ensembl.org/pub/release-

Ensembl - BioMart







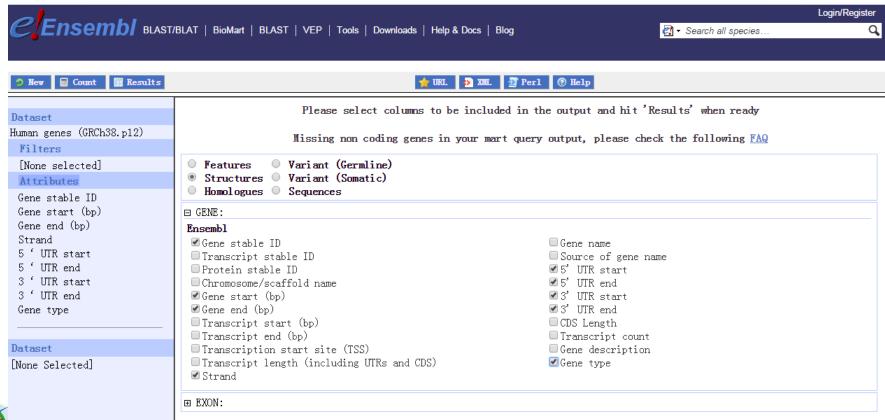
Ensembl - BioMart (Features)



Login/Register											
Ensembl Blast/Blat BioMart Blast VEP Tools Downloads Help & Docs Blog ☑ ▼ Search all species Q											
New				*	URL	XMI.	. □	Perl 😨	Help		
Dataset	Export all 1	results to	File	;					▼ TSV ▼ □ Unique results only ⊘ Go		
Human genes (GRCh38.p12)	Email notific	eation to									
Filters											
[None selected] Attributes	View			20 ▼ rows as HTML ▼				Unique re	esults only		
Gene stable ID Transcript stable ID	Gene stable ID	Transcript stable ID	Gene name	Gene start (bp)	Gene end (bp)	Strand	NCBI gene ID	UniProtKB Gene Name ID	GO term definition		
Gene name Gene start (bp)	ENSG00000210049	ENST00000387314	MT- TF	577	647	1					
Gene end (bp)	ENSG00000211459	ENST00000389680	MT- RNR1	<u>648</u>	<u>1601</u>	1	<u>4549</u>				
Strand NCBI gene ID	ENSG00000210077	ENST00000387342	<u>MT-</u> <u>TV</u>	<u>1602</u>	<u>1670</u>	1					
UniProtKB Gene Name ID GO term definition	ENSG00000210082	ENST00000387347	MT- RNR2	<u>1671</u>	3229	1	<u>4550</u>				
	ENSG00000209082	ENST00000386347	MT- TL1	3230	3304	1					
Dataset	ENSG00000198888	ENST00000361390	MT- ND1	3307	4262	1	<u>4535</u>	P03886	"A lipid bilayer along with all the proteins and protein complexes embedded in it an attached to it." [GOC:dos,		
[None Selected]	ENSG00000198888	ENST00000361390	MT- ND1	3307	4262	1	<u>4535</u>	P03886	"A metabolic process that results in the removal or addition of one or more electrons to or from a substance, with or without the concomitant removal or addition of a proton or protons." [GOC:dhl, GOC:ecd,		
の人母金四行スペルホ/ 日PKム PJ EHBIO Gene Technology (Beijing) co., LTD			黒 华	信 毕	牛绿	· 培训:	石木D EF	右			

Ensembl - BioMart (Structures)

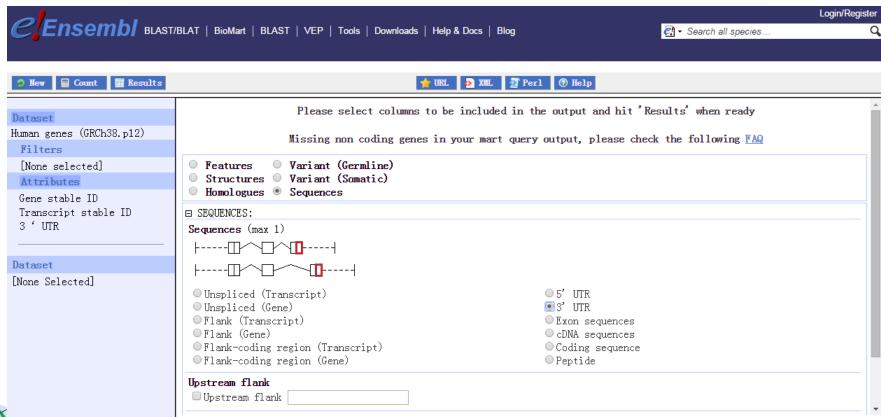






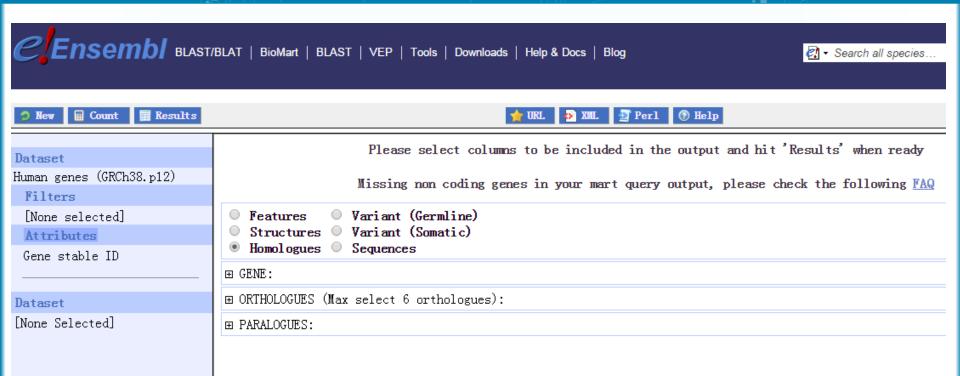
Ensembl - BioMart (Sequences)





Ensembl - BioMart (Homologues)

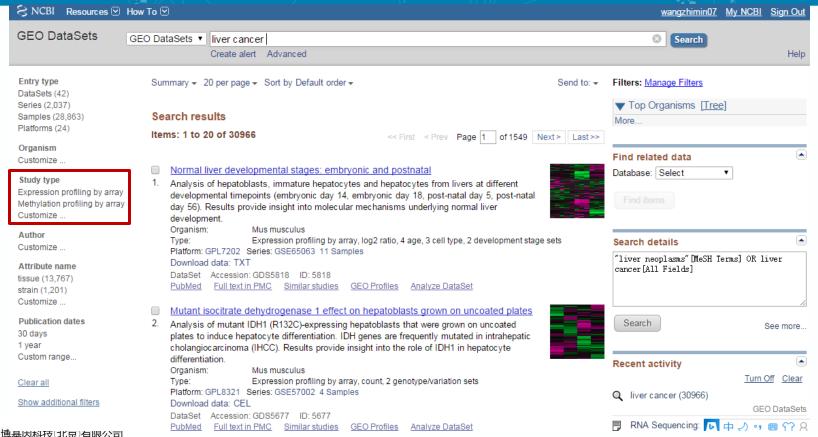






NCBI - GEO





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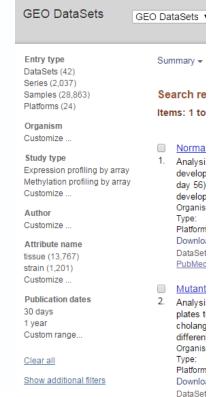


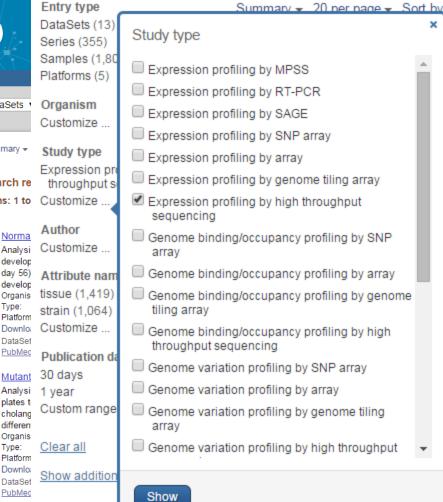
10

NCBI-GEO

NCBI Resources How To





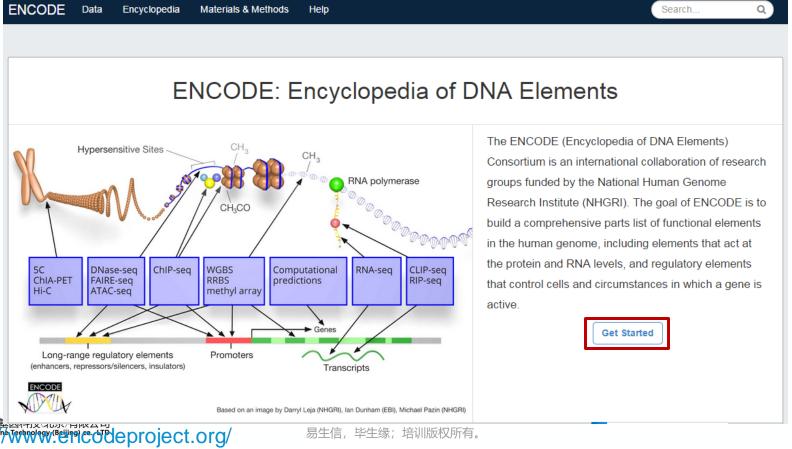






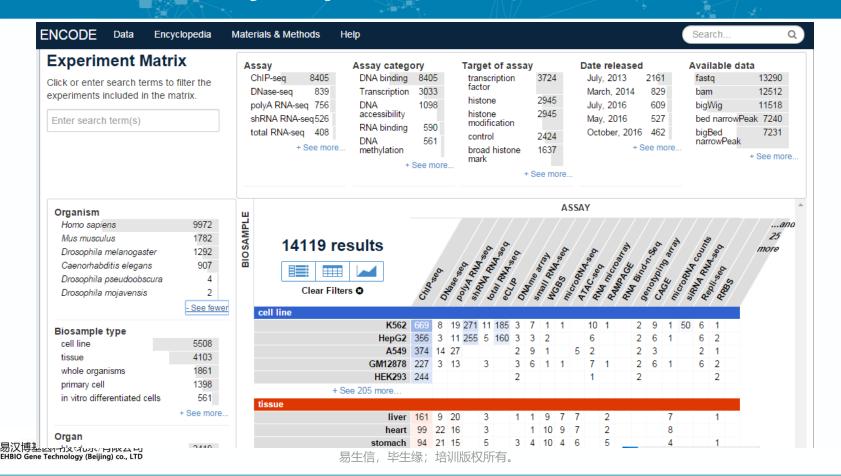
ENCODE - Encyclopedia of DNA Elements





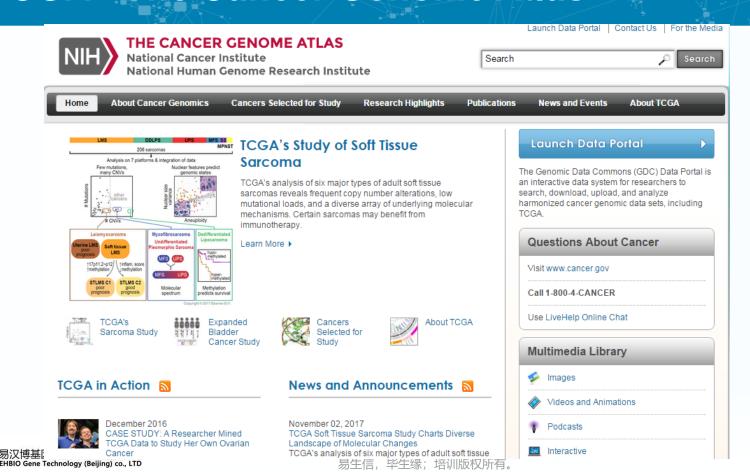
ENCODE - Encyclopedia of DNA Elements



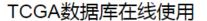


TCGA - The Cancer Genome Atlas



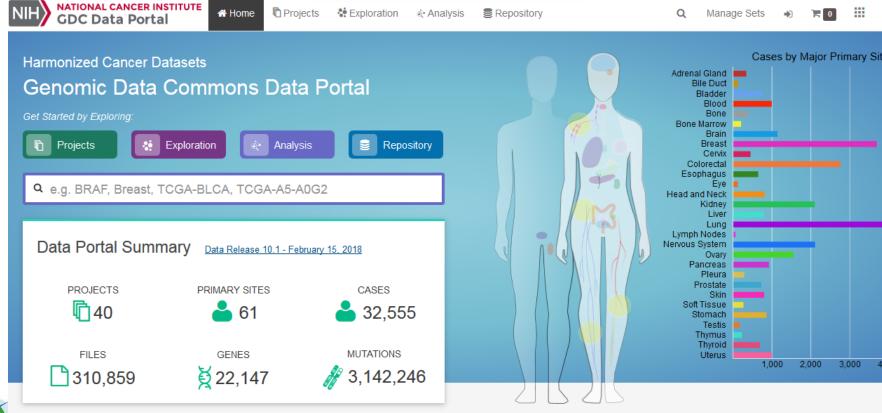


TCGA data portal



创) 2017-08-26 陈同 生信宝典





TCGA - 数据下载



GDC Data Transfer Tool

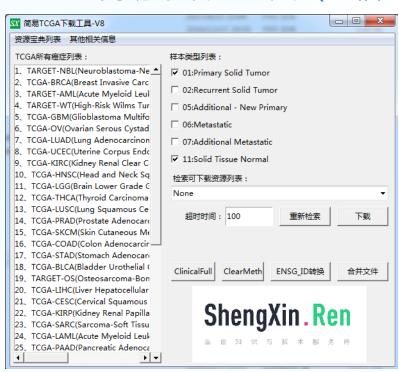
https://gdc.cancer.gov/access -data/gdc-data-transfer-tool

https://docs.gdc.cancer.gov/D ata Transfer Tool/Users Gui de/Data Download and Uplo ad/

UCSC XENA (集成分析 TCGA, ICGC数据)



。 TCGA简易下载小工具 (生信人) │



Human protein atlas (http://www.proteinatlas.org/)

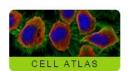


THE HUMAN PROTEIN ATLAS

■MENU HELP

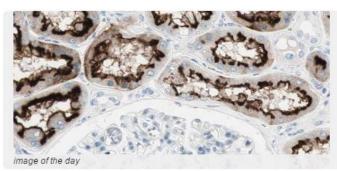
EARCH ^I	
	Search Fields »
e.g. RBM3, insulin, CD36	







NEWS



Version: 18 Atlas updated: 2017-12-01 release history

Proteome analysis based on 26009 antibodies targeting 17000 unique proteins.



Human protein atlas (http://www.proteinatlas.org/)

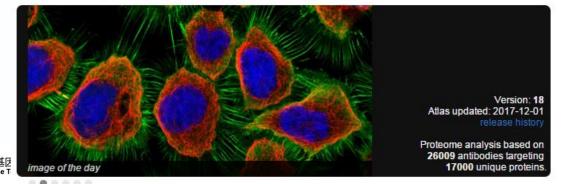


THE HUMAN PROTEIN ATLAS

■MENU HELP NEWS

SEARCH		
CD36		Search Fields »
WANTS		
		48 V 36 7 18
TISSUE ATLAS	CELL ATLAS	PATHOLOGY ATLAS

在线查询目的基 因的信息。

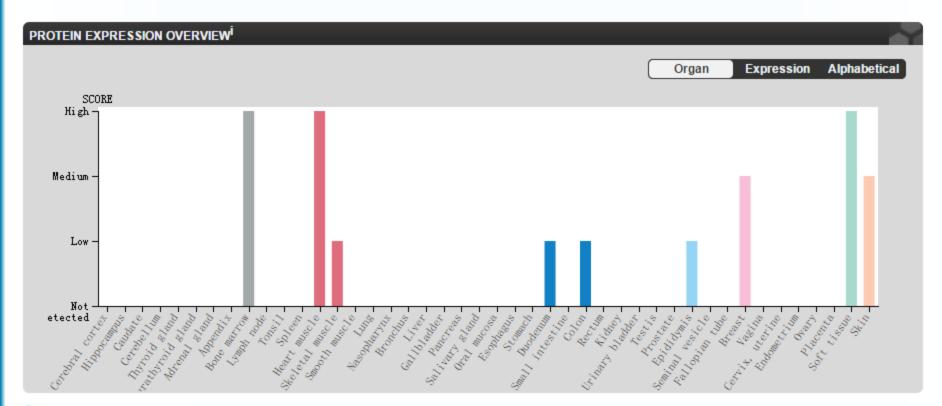




18

Human protein atlas - 蛋白表达水平

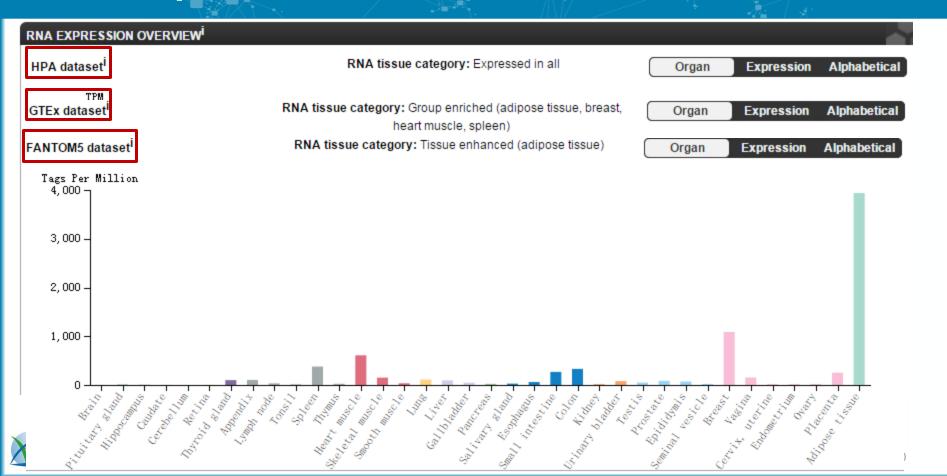






Human protein atlas - RNA表达水平





Human protein atlas (http://www.proteinatlas.org



THE HUMAN PROTEIN ATLAS

HELP

THE HUMAN PROTEOME

THE HUMAN TISSUES

THE HUMAN CELL

HUMAN PATHOLOGY

PROTEIN CLASSES

PROTEIN EVIDENCE

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NEWS ARTICLES

EVENTS

PRESS ROOM

LEARN

DICTIONARY

METHODS

dictionary: histology of Thyroid gland

CELLLINES

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PUBLICATIONS

PUBLICATION DATA

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ANTIBODY AVAILABILITY

LINKS

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ANTIBODY VALIDATION

ASSAYS & ANNOTATION

DISCLAIMER

DOWNLOADABLE DATA

HELP & FAQ

LICENCE & CITATION

PRIVACY STATEMENT

RELEASE HISTORY



Version: 18 Atlas updated: 2017-12-01 release history

Proteome analysis based on 26009 antibodies targeting 17000 unique proteins.



下载数据进行本

地分析。

Human protein atlas (http://www.proteinatlas



The data is based on The Human Protein Atlas version 18 and Ensembl version 88.38.

4 RNA gene data

RNA levels in 64 cell lines and 37 tissues based on RNA-seq. The tab-separated file includes Ensembl gene identifier ("Gene"), analysed sample ("Sample") and transcripts per million ("Value" and "Unit"). The data is based on The Human Protein Atlas version 18 and Ensembl version 88.38. RNA sequencing data for human tissue

5 RNA isoform data

RNA sequencing data for human cell lines

RNA levels in 64 cell lines and 37 tissues based on RNA-seq. The tab-separated file includes Ensembl gene identifier ("Gene"), Ensembl transcript identifier ("Transcript"), analysed sample ("Sample") and transcript per million ("TPM"). The data is based on The Human Protein Atlas version 18 and Ensembl version 88.38.

6 Data from the Human Protein Atlas in tab-separated format This file contains a subset of the data in the Human Protein Atlas version 18

corresponding to the data seen in the search result. This data can also be downloaded for a resulting gene set when using the search function (via the TSV link

on the result page).

rna tissue.tsv.zip TSV-file, 3.7 MB rna celline.tsv.zip

TSV-file, 6.2 MB

transcript rna tissue.tsv.zip TSV-file, 73,7 MB

transcript rna celline.tsv.zip

TSV-file, 51.9 MB

proteinatlas.tsv.zip

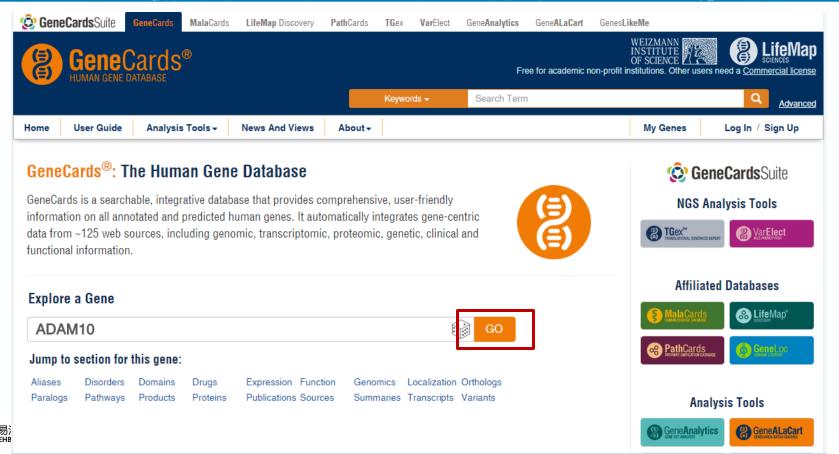
TSV-file (gzip compressed), 1.5 MB

7 Data from the Human Protein Atlas in XML format



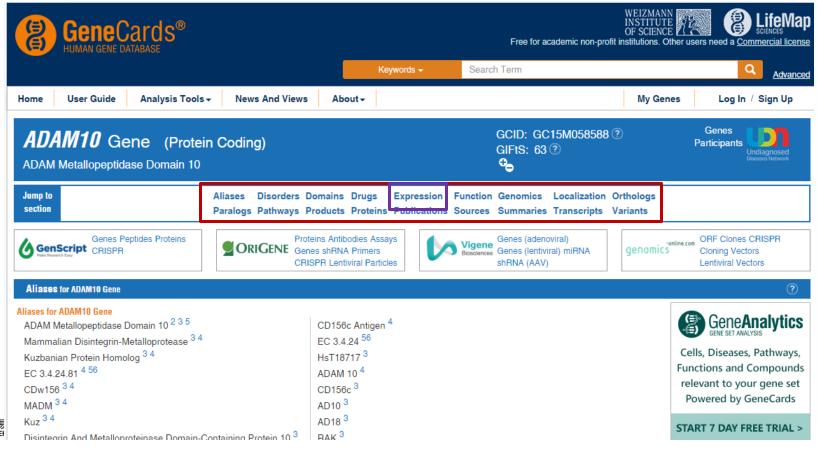
GeneCards (http://www.genecards.org/)





GeneCards (http://www.genecards.org/)

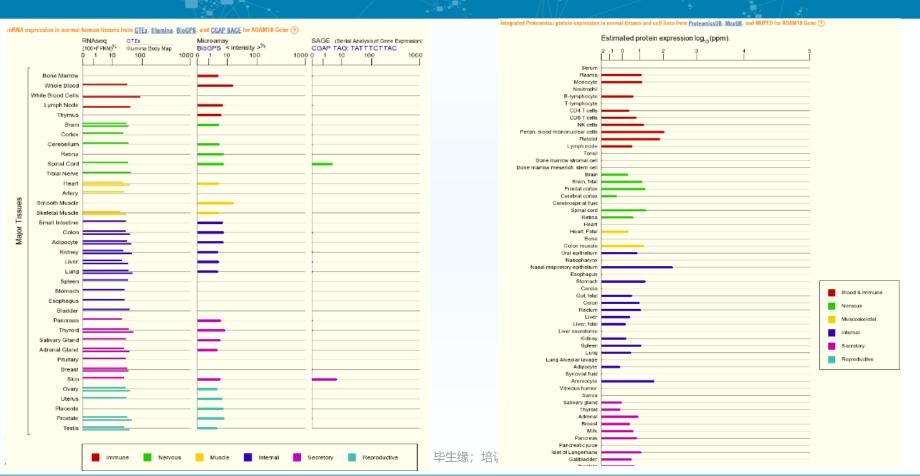






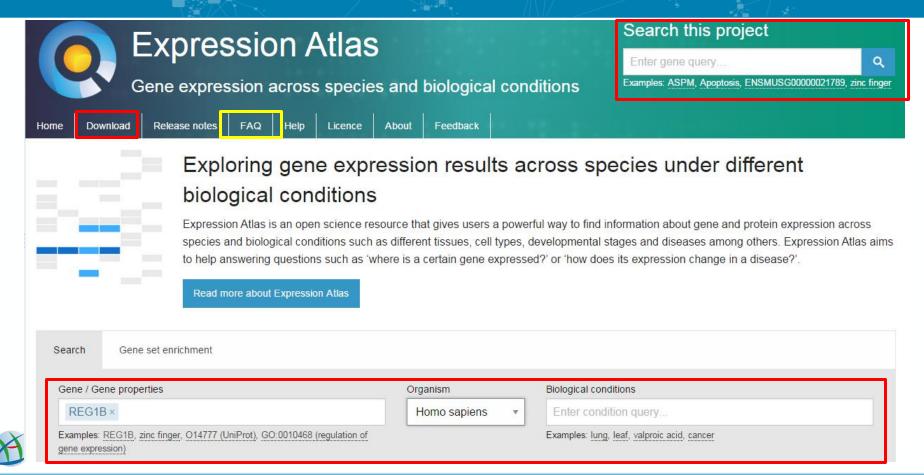
GeneCards - RNA和蛋白表达水平





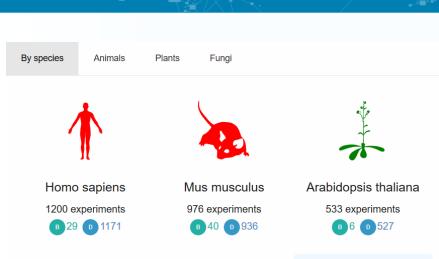
EMBL-EBI (https://www.ebi.ac.uk/gxa/home)





EBI gxa支持多物种,动物,植物







Rattus norvegicus 141 experiments



Drosophila melanogaster

128 experiments





Saccharomyces cerevisiae

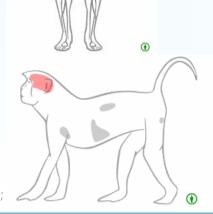
41 experiments

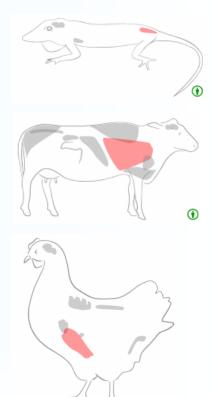














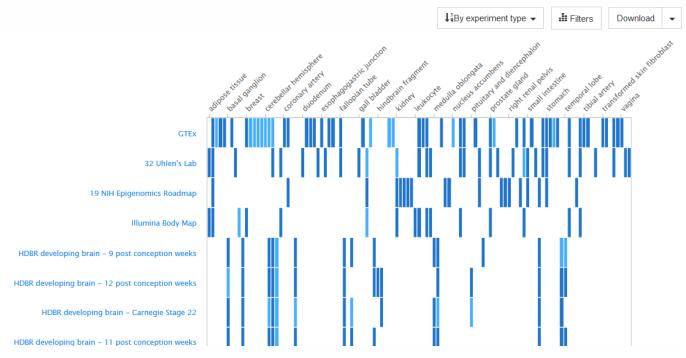
搜索基因Myc查看其表达



Homo sapiens — Organism part

Showing 30 experiments:

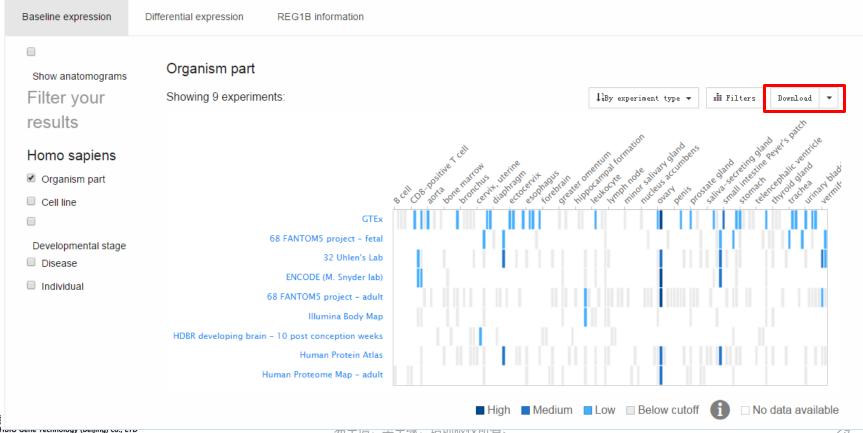






EMBL-EBI (https://www.ebi.ac.uk/gxa/home





肿瘤和正常样本基因表达



GEPIA GoPIA Example API **GEPIA** Gene Expression Profiling Interactive Analysis Single Gene Analysis Cancer Type Analysis Multiple Gene Analysis 9,736 tumors and 8,587 normal samples Enter gene name: from the TCGA and the GTEx projects The indicators in search box are "symbol" or "alias (newest symbol)". GoPIA! e.g. ERBB2/ENSG00000141736/2064 Stage Plots Survival Analysis Similar Boxplots

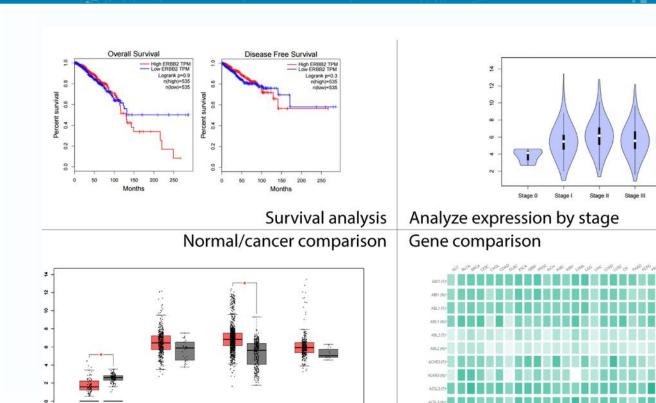


肿瘤和正常样本基因表达图谱绘制



F value = 24.7 Pr(>F) = 1.54e-24

Stage X





CESC

(num(T)=306; num(N)=13)

BLCA

(num(T)=404; num(N)=28)

BRCA

(num(T)=1085: num(N)=291)

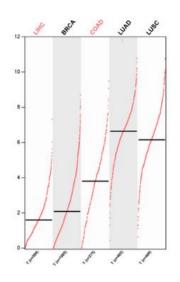
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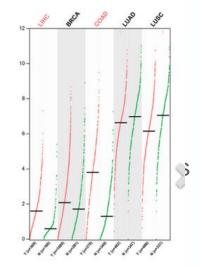
肿瘤和正常样本基因表达图谱绘制



Interactive bodymap

Gene expression by cancer type / tissue type



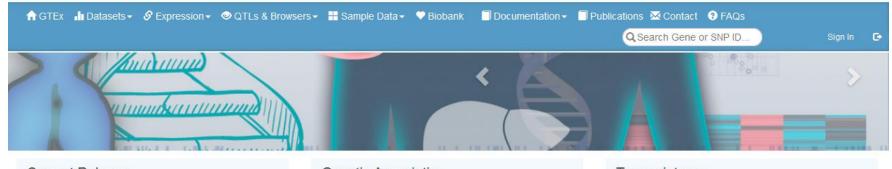


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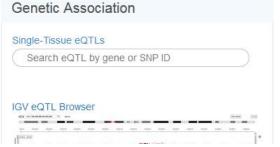
GTEX (https://gtexportal.org/home/)













Portal for the Genotype-Tissue Expression (GTEx) project. Gene expression and quantitative trait loci from 53 human tissues. Visualization

and download of all public data generated by the GTEx project.



BioGPS (http://biogps.org/#goto=welcome)

EHBIO Gene Technology (Beijing) co., LTD

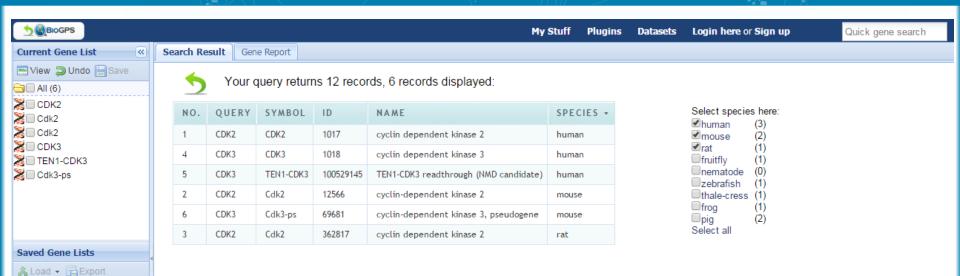




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BioGPS (http://biogps.org/#goto=welcome)



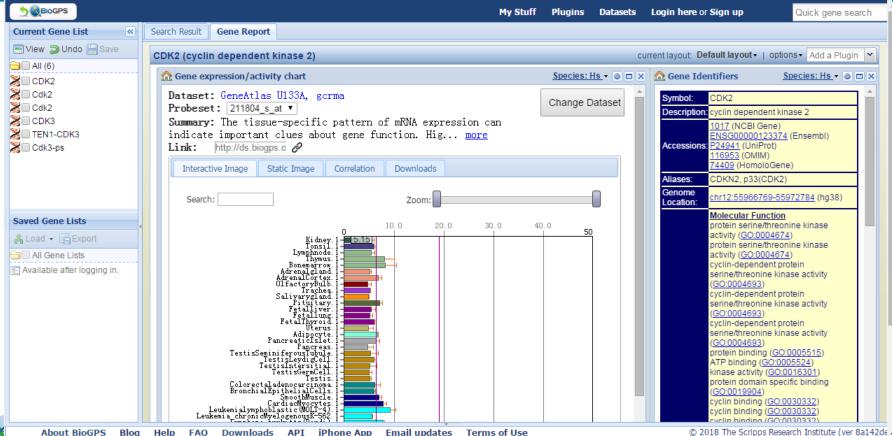




All Gene Lists
Available after logging in.

BioGPS (http://biogps.org/#goto=welcome)





Sequencing costs a lot and gains more





扫码关注生信宝典, 学习更多生信知识



扫码关注宏基因组, 获取专业学习资料

易生信,没有难学的生信知识

