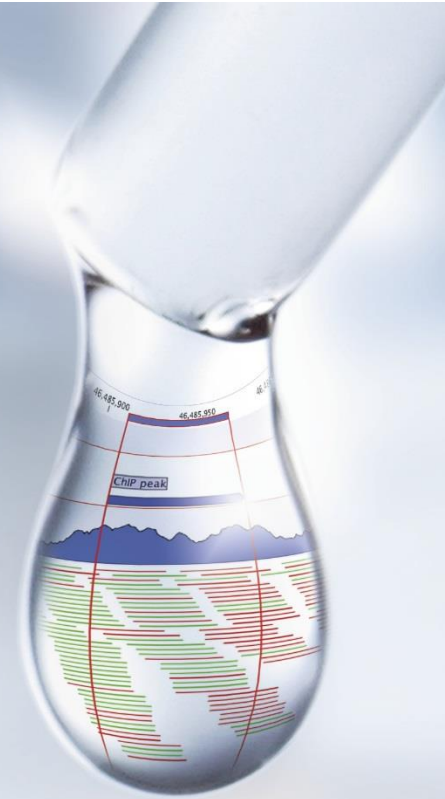


QIAGEN IPA

IPA以數據演算及人工閱讀的資料庫文獻，
提供您快速的在數千萬筆的研究分析資料中，
找到最關鍵的生物途徑與分子間調控關係。

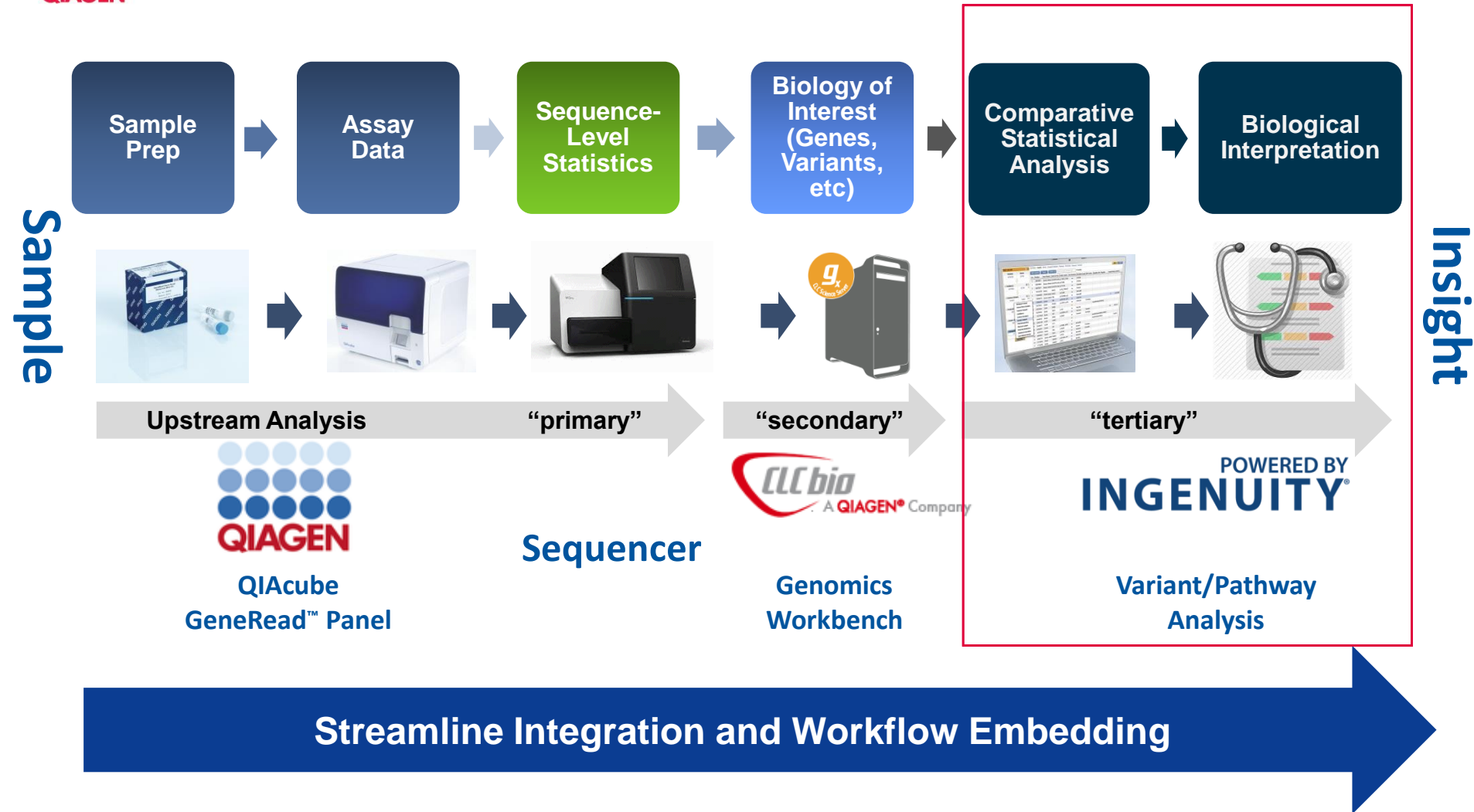


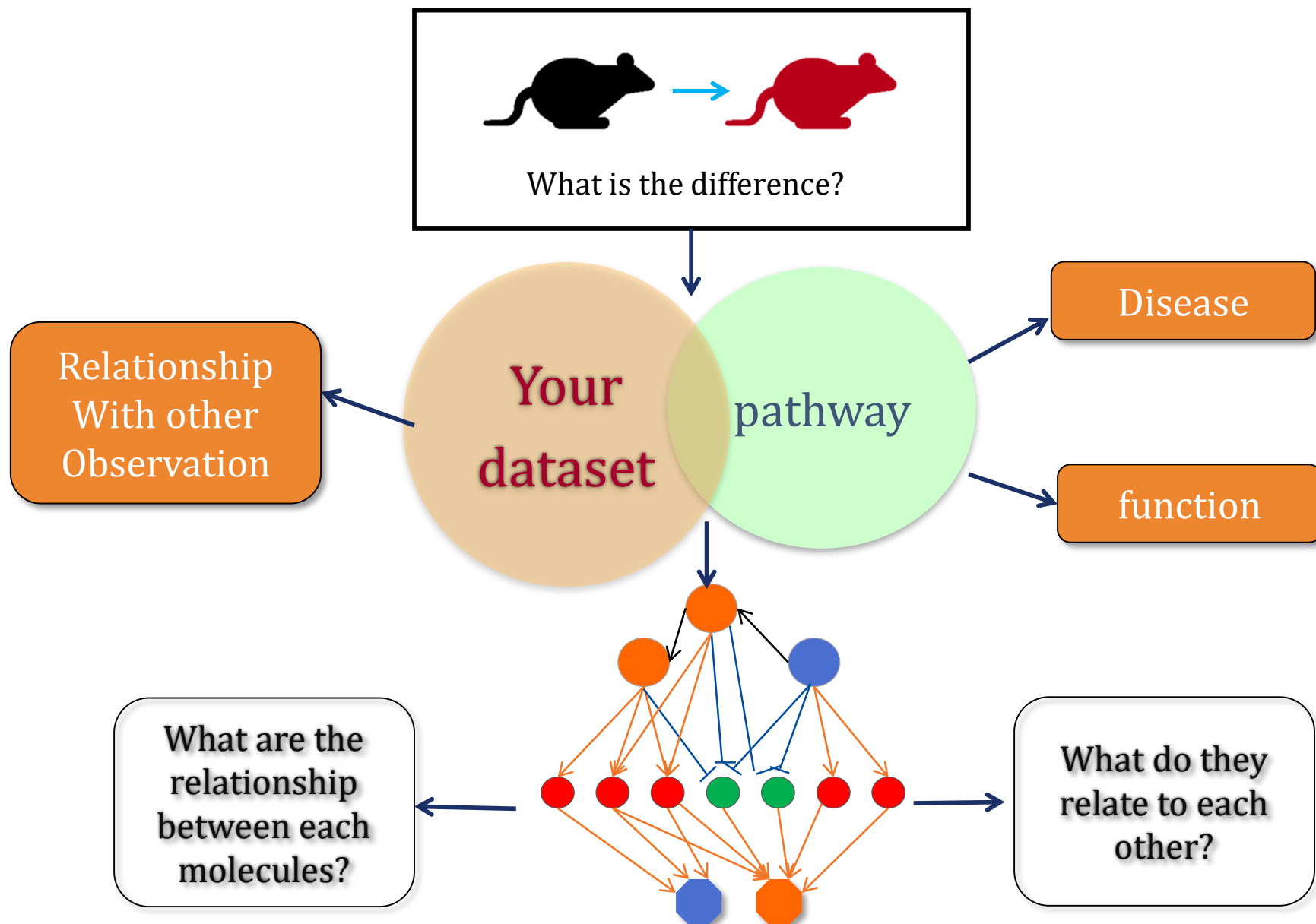
Zoe Huang 黃柔諭

Ingenuity **Pathway** Analysis



1. Introduction to IPA
2. Learn how to search database in IPA
3. Draw the relationship between 3 nodes (Gene/Disease/Pathway)
4. Upload dataset to IPA and create core analysis
5. Comprehend the biological meaning of the IPA analysis result





IPA orthologous (25 species):

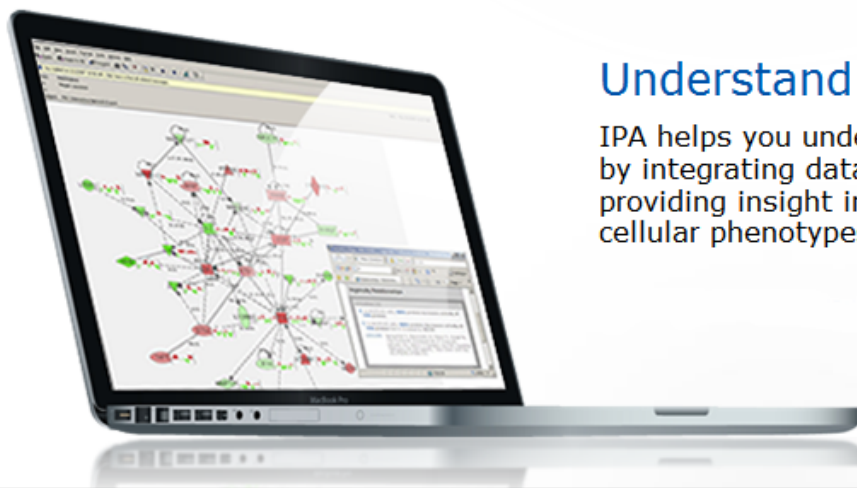
- Arabidopsis thaliana
- Bos taurus (bovine)
- Caenorhabditis elegans
- Gallus gallus (chicken)
- Pan troglodytes (chimpanzee)
- Danio rerio (zebrafish)
- Canis lupus familiaris (canine)
- Drosophila melanogaster
- Macaca mulatta (Rhesus Monkey)
- Saccharomyces cerevisiae
- Schizosaccharomyces pombe

IPA supported platform :

- **Gene expression:**
qPCR analysis
Microarray
RNA-Seq (NGS)
microRNA
mRNA
- **Proteomics**
PhosphoProteomics
- **Metabolomics**

IPA application:

- Biomarker finding
- Toxicity functions
- Diseases regulation




Understand Complex 'Omics Data

IPA helps you understand complex 'omics data at multiple levels by integrating data from a variety of experimental platforms and providing insight into the molecular and chemical interactions, cellular phenotypes, and disease processes of your system.


Get more complete mapping during dataset upload!

Vendor IDs	Gene	Protein	Transcript	microRNA	SNP	Chemical
Affymetrix (na36)	Entrez Gene (2020/10)	GenPept	Ensembl (101)	miRBase (mature)	Affy SNP IDs	CAS Registry Number
Agilent	GenBank (239)	International Protein Index (IPI)	RefSeq (human 、 mouse)	miRBase (stemloop)	dbSNP	HMDB
Life Tech (ABI)	Symbol-human (HUGO/ HGNC, EG)	UniProt/ Swiss-Prot Accession (2020_03)	UCSC (hg18)			KEGG
Codelink	Symbol- mouse (EG)		UCSC (hg19)			PubChem CID
Illumina	Symbol- rat (EG)		UCSC (hg38)			
Ingenuity	GI Number					
	UniGene					

>53,800 publications that used IPA and growing! (Search Google Scholar for [publications that cite IPA.](#))




National Library of Medicine
National Center for Biotechnology Information



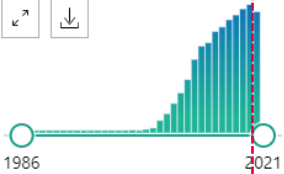
×
Search

[Advanced](#)
[Create alert](#)
[Create RSS](#)
[User Guide](#)

Sorted by: Best match

MY NCBI FILTERS 

RESULTS BY YEAR



1986 2021

TEXT AVAILABILITY

☐ Abstract
 ☐ Free full text
 ☐ Full text

ARTICLE ATTRIBUTE

☐ Associated data

ARTICLE TYPE

☐ Books and Documents
 ☐ Clinical Trial
 ☐ Meta-Analysis
 ☐ Randomized Controlled Trial

3,078 results

☐

Causal analysis approaches in Ingenuity Pathway Analysis.

1 Krämer A, Green J, Pollard J Jr, Tugendreich S.
 Cite Bioinformatics. 2014 Feb 15;30(4):523-30. doi: 10.1093/bioinformatics/btt703. Epub 2013 Dec 13.
 PMID: 24336805 [Free PMC article.](#)

Share RESULTS: We present and discuss a suite of algorithms and tools for inferring and scoring regulator networks upstream of gene-expression data based on a large-scale causal network derived from the **Ingenuity** Knowledge Base. ...AVAILABILITY: The causal analytics tools 'Upstr ...

☐

Gene set enrichment analysis and ingenuity pathway analysis of metastatic clear cell renal cell carcinoma cell line.

2 Khan MI, Dębski KJ, Dabrowski M, Czarnecka AM, Szczyluk C.
 Cite Am J Physiol Renal Physiol. 2016 Aug 1;311(2):F424-36. doi: 10.1152/ajprenal.00138.2016. Epub 2016 Jun 8.
 PMID: 27279483 [Free article.](#)

Share Gene Set Enrichment **Analysis** (GSEA) and **Ingenuity Pathway Analysis** (IPA) approaches were used to analyze the differential-expression data. ...The GSEA approach was used to further confirm enriched **pathway** data following IPA....

☐

Metabolomics study of the hepatoprotective effect of Phellinus igniarius in chronic ethanol-induced liver injury mice using UPLC-Q/TOF-MS combined with ingenuity pathway analysis.

3 Dong Y, Qiu P, Zhao L, Zhang P, Huang X, Li C, Chai K, Shou D.
 Cite Phytomedicine. 2020 Aug;74:152697. doi: 10.1016/j.phymed.2018.09.232. Epub 2018 Oct 2.
 PMID: 30392748

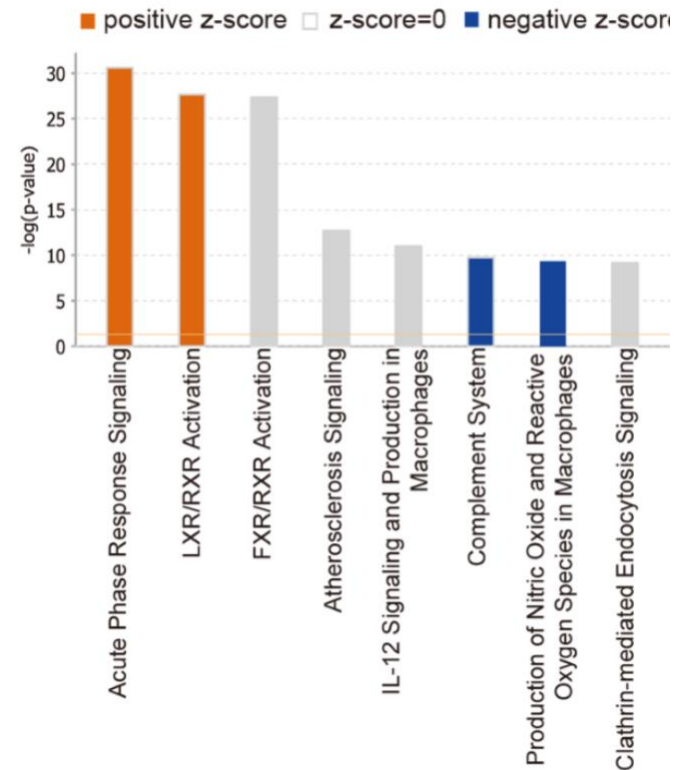
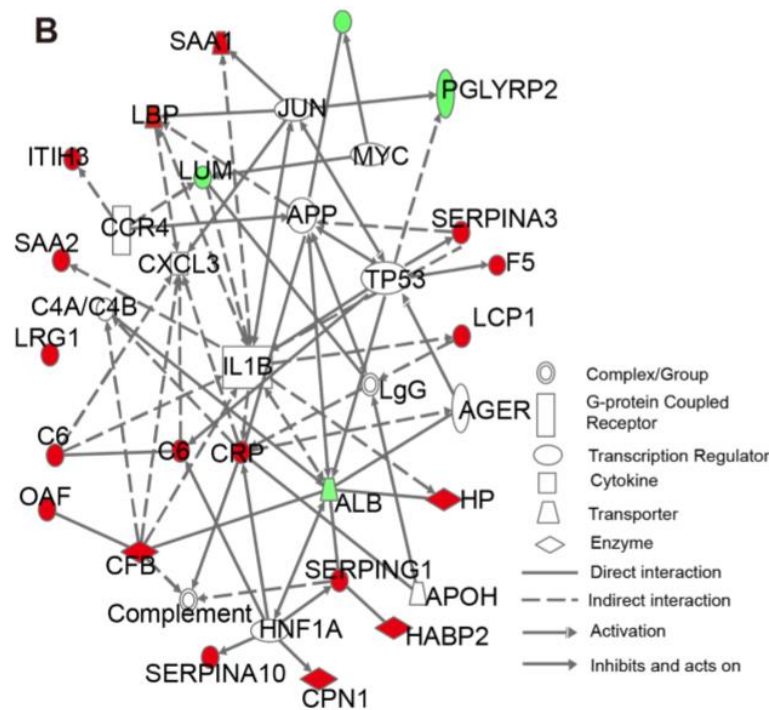
Share **Ingenuity pathway analysis** (IPA) was employed to identify the potential target of PID. RESULTS: PID

Sample to insight

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7

Here is one latest paper submitted to medRxiv using IPA to identify potential protein and metabolite biomarkers in severe COVID-19 disease. In this study, IPA was used to identify most significantly relevant pathways and build regulation networks. It is welcome to share with your customers or distributor, and please let me know if you need further help.



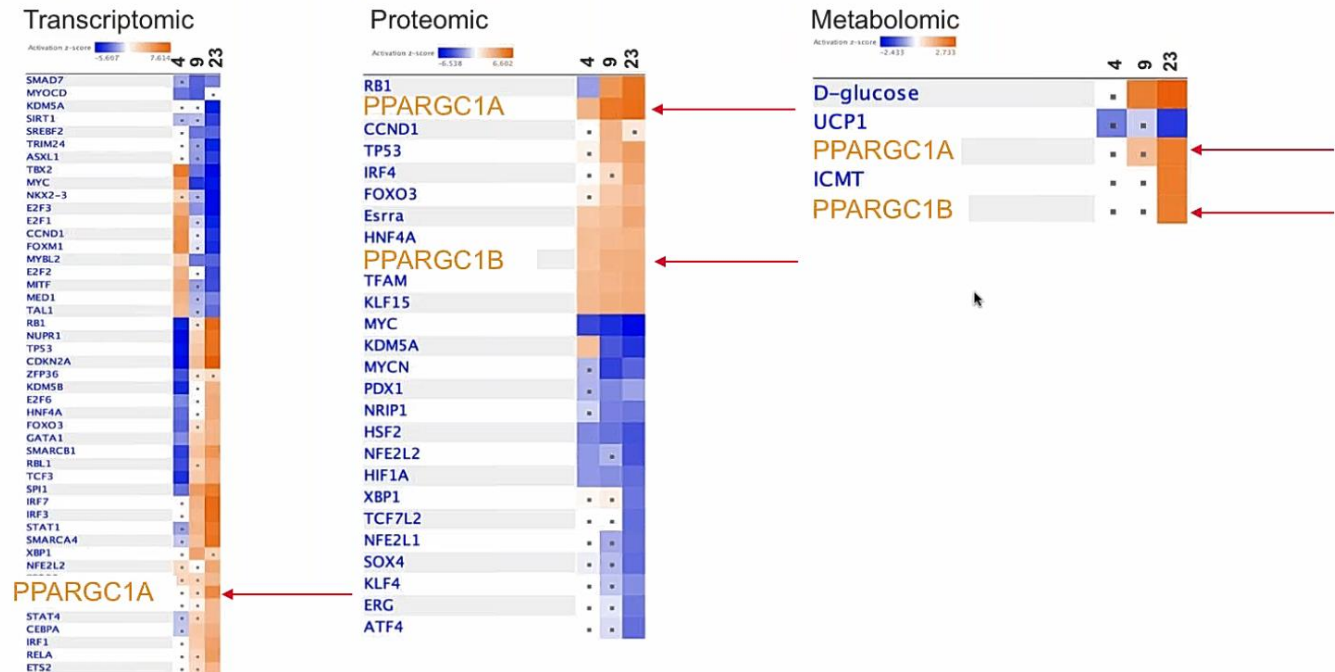
<https://www.medrxiv.org/content/10.1101/2020.04.07.20054585v1>

Integrate and compare genomics, transcriptomics, proteomics and metabolomics data to see the big picture on your focus research

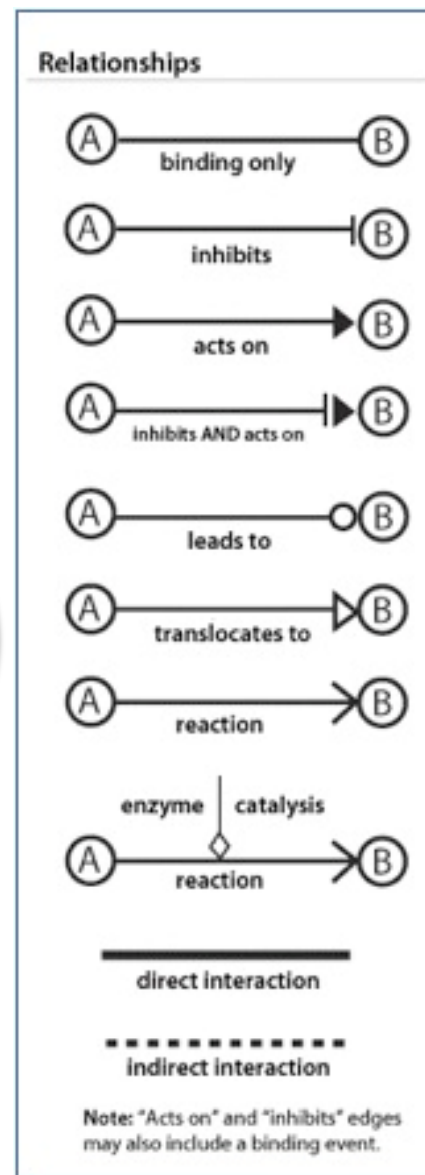
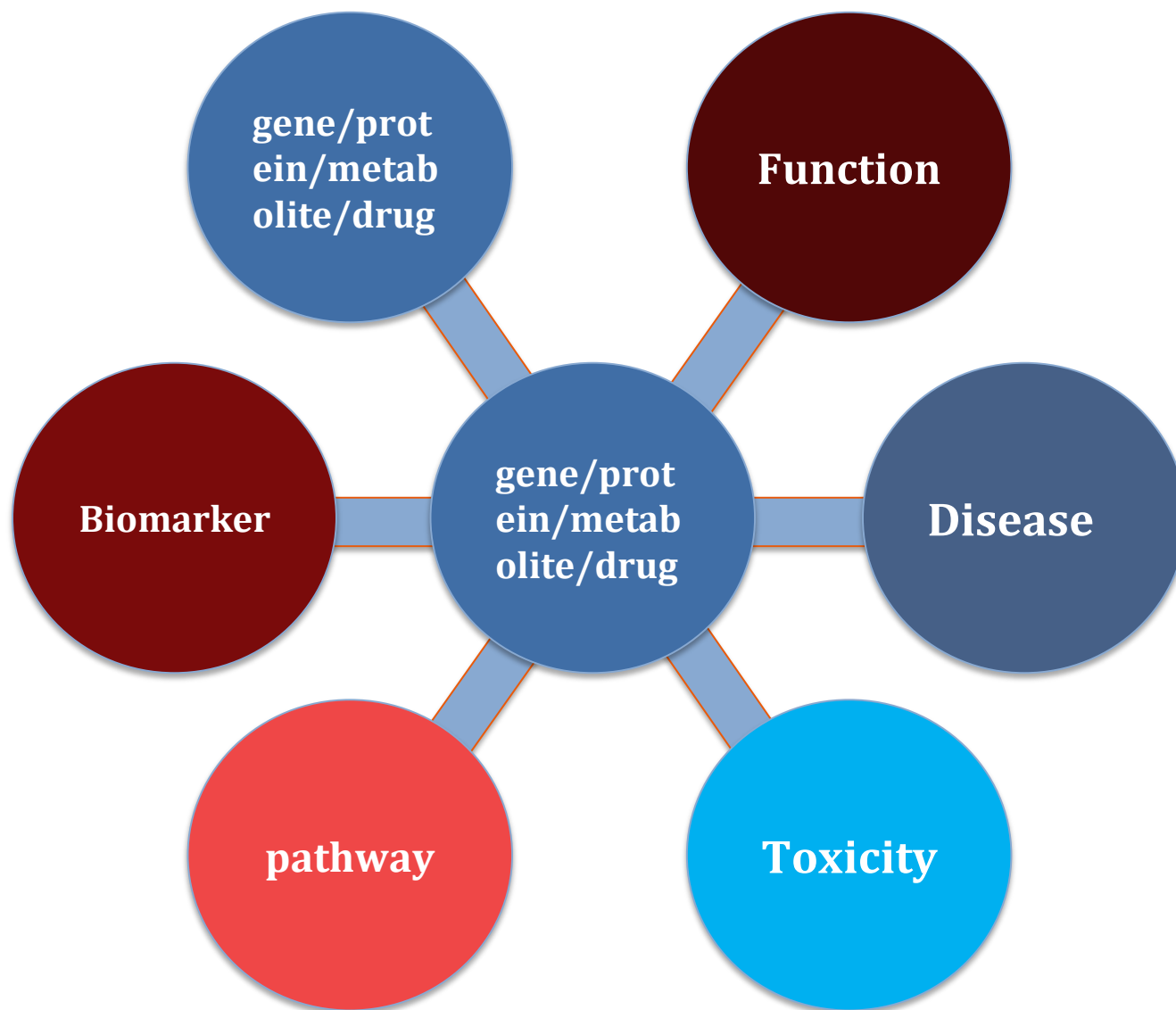
Transcriptomics, proteomics and metabolic changes in the postnatal mouse heart identified by QIAGEN IPA and OmicSoft

Multi-omics analysis indicate similar transcriptional drivers

Upstream Analysis of transcriptomic, proteomic, and metabolomic data show induction of fatty oxidation regulation by PPARG coactivators.



<https://go.qiagen.com/IPA-multi-omics-analysis-webinar>





IPA Relationships: ENDO G|DNA fragmentation

Review the information that supports the gene-to-function relationship. Click the plus icon to view the reference information.

EndNote ▼

[EXPORT REFERENCES](#)

Ingenuity Relationships

causation [16]

Translocation of *ENDONUCLEASE G [ENDOG]* protein to nuclei from mammal cultured hepatocytes increases

[18691057](#)

Gómez-Lechón MJ, O'Connor JE, Lahoz A, Castell JV, Donato MT. Identification of apoptosis-inducing factor as a translocator of endonuclease G. *J Biol Chem* 2008;283(15):10771-85.

Source: Ingenuity Expert Findings

Rat *Endog* protein in a cell free system increases fragmentation of nucleosomal Deoxyribonucleic Acid in nuclei

Experiment Type:

agarose gel electrophoresis

[16407272](#)

Ishihara Y, Shimamoto N. Involvement of endonuclease G in nucleosomal DNA fragmentation. *J Biol Chem* 2006;281(10):6726-33. Epub 2006 Jan 4.

Source: Ingenuity Expert Findings

In cytoplasm, ***Endo G* protein increases fragmentation of DNA.**

[15182854](#)

Lemarié A, Lagadic-Gossmann D, Morzadec C, Allain N, Fardel O, Vernhet L. Cadmium-induced oxidative stress-related impairment of mitochondria and relocation of endonuclease G. *J Biol Chem* 2005;280(12):11851-60.

Source: Ingenuity Expert Findings

***ENDOG* protein in a cell-free system increases fragmentation of DNA in nuclei.**

[15077142](#)

Cregan SP, Dawson VL, Slack RS. Role of AIF in caspase-dependent and caspase-independent DNA fragmentation. *J Biol Chem* 2001;276(12):10351-6.

Source: Ingenuity Expert Findings

***zVAD* causes little or no change in fragmentation of DNA that is mediated by *ENDOG* protein.**

[15077142](#)

Cregan SP, Dawson VL, Slack RS. Role of AIF in caspase-dependent and caspase-independent DNA fragmentation. *J Biol Chem* 2001;276(12):10351-6.

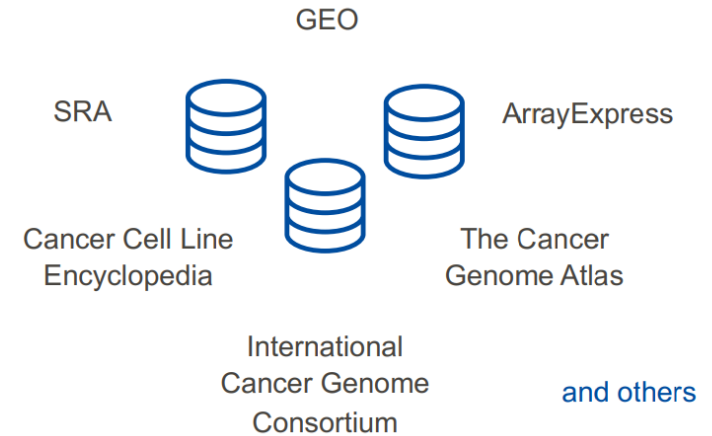
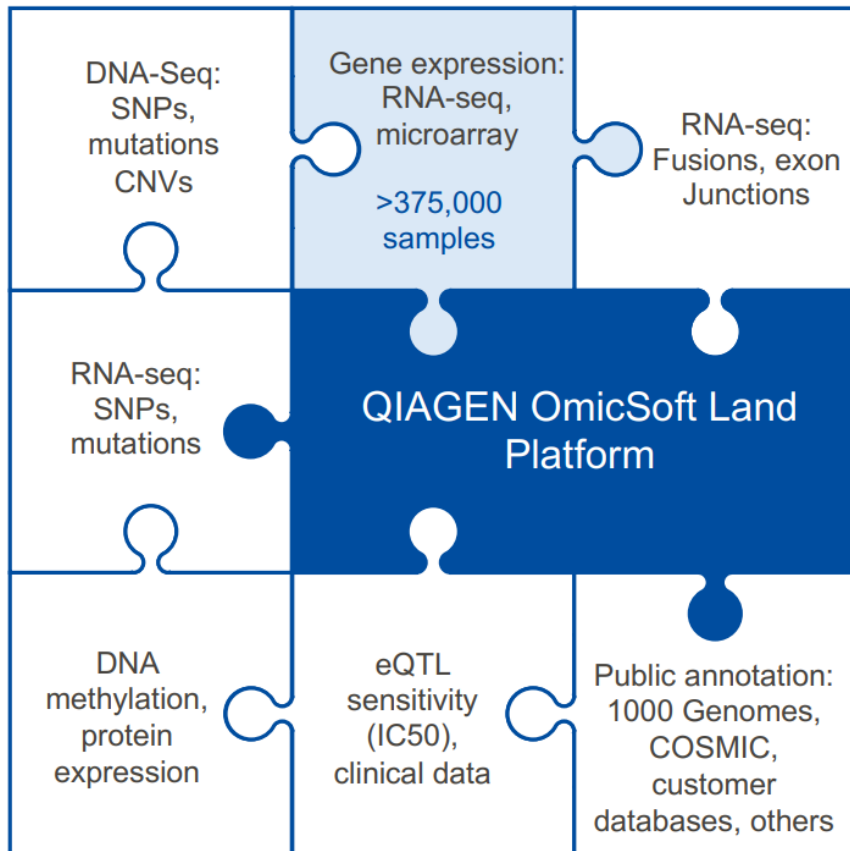
Source: Ingenuity Expert Findings

- **Synonyms, Protein Family, Domains**
 - GO, Entrez Gene, Pfam
- **Tissue and Biofluid Expression & Location**
 - GNF, Plasma Proteome
- **Molecular Interactions**
 - BIND, DIP, MIPS, IntAct, Biogrid, MINT, Cognia, etc.
- **miRNA/mRNA target databases**
 - TarBase, TargetScan, miRecords
- **Gene to Disease Associations**
 - OMIM, GWAS databases
- **Metabolomics**
 - HumanCyc
- **Clinical Trial information**
 - ClinicalTrials.gov



- More than **12 million** findings from literature source or database.
- More than **124,927** comparison datasets from QIAGEN OmicSoft Lands.

Lands provide expression data to QIAGEN IPA



Land	Repository	Datasets Q3 2022	Datasets Q4 2022	Increase
DiseaseLand	HumanDisease	31,041	32,092	1,051
	MouseDisease	24,411	24,506	95
	RatDisease	7,900	7,900	
	LINCS	28,234	28,234	
OncoLand	OncoHuman (Formerly OncoGEO)	13,360	14,131	771
	OncoMouse	1,054	1,054	
	TCGA	4,438	4,438	
	MetastaticCancer	81	81	
	Hematology	4,267	4,267	
	Pediatrics	444	444	
	ENCODE RNA Binding	486	486	
Single Cell Land	SingleCellHuman	194	194	
	SingleCellHumanUmi	2056	2056	
	SingleCellHumanUmiLite	603	603	
	SingleCellHumanHCL	1,476	1,476	
	SingleCellMouse	81	81	
	SingleCellMouseUmi	1,457	1,457	
	SingleCellMouseUmiLite	115	115	
Normal Cells and Tissues	Human Tissues (GTEx)	52	1,312	1,260

- 1) What does the data reveal about the underlying biology in the **sampled cells or tissues**?
- 2) What relevance does that **biological information** have with respect to other biological samples?

Search

Genes and Chemicals Diseases and Functions Pathways and Tox Lists

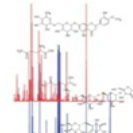
Enter gene names/symbols/IDs or chemical/drug names here

SEARCH

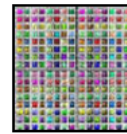
Experiment Data



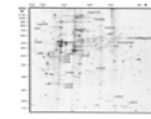
Expression arrays



Mass spec

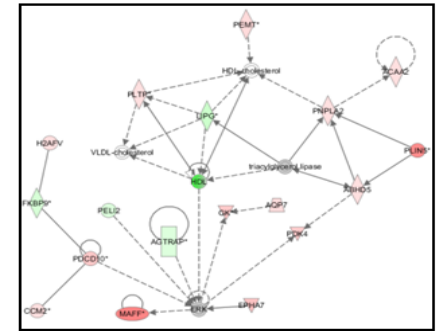


Protein arrays



2D Gel electrophoresis

Custom Pathway



Networks



Core



IPA-Biomarker

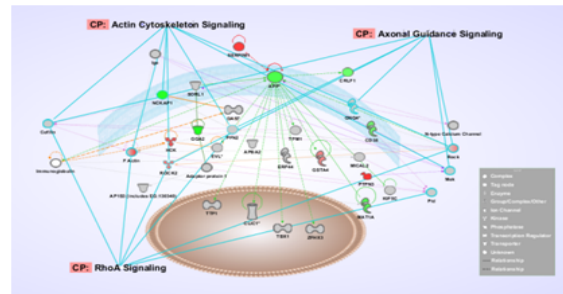


IPA-Tox



IPA-Metabolomics

Bio/Tox Functions
Diseases/Disorders
Canonical Pathways
Upstream regulators
Mechanistic/Casual Network
Interaction Network



Communicate & Collaborate

1. Learn how to search database in IPA
2. Draw the relationship between 3 nodes (Gene/Disease/Pathway)
3. Upload dataset to IPA and create core analysis
4. Realize the meaning of the IPA analysis result

Live Demo

Learn how to search database in IPA

- Search (Genes and Chemicals) : IL1B

Search Results

Genes and Chemicals

Diseases and Functions

Add To My Pathway

Add To My List

Create Dataset

BioProfiler

Interaction Network

Activity Plot

The search for IL1B matched 1 items.

<input type="checkbox"/>	#	Symbol	Matched Term	Synonym(s)	Entrez Gene Name	Location
<input type="checkbox"/>	1	IL1B	IL1B, IL1b	IL-1, IL1-BETA, IL-1F2, IL-1 β , interleukin 1 beta, Interleukin 1 β , OAF, Osteoclast-Activating Factor, Pro-IL-1beta, Pro-IL-1 β	interleukin 1 beta	Extracellular Space

IPA Gene View

IPA Gene View: IL1B (Mammalian) > Interaction Network

Contact Support | Help Documentation

Review the categorized literature findings and database information for this node.

Summary

Human

Mouse

Rat

Member Of:

cytokine, IL1, IL1/IL6/TNF, Pro-inflammatory Cytokine

Entrez Gene Name:

interleukin 1 beta

Synonym(s):

IL-1, IL1-BETA, IL-1F2, IL-1 β , interleukin 1 beta, Interleukin 1 β , OAF, Osteoclast-Activating Factor, Pro-IL-1beta, Pro-IL-1 β

NCBI CDD Domains (Superfamilies / Multi-Domains):

IL1, Interleukin-1 propeptide

Protein Functions / Functional Domains:

cytokine, integrin binding, protein binding, protein domain specific binding

Subcellular Location:

axons, cell surface, cellular membrane, Cytoplasm, cytosol, endosomes, Extracellular Space, granules, intracellular space, lysosome, Nucleus, plasma, Plasma Membrane, secretory granules, vesicles

Canonical Pathway:

Acute Phase Response Signaling; Adrenomedullin signaling pathway; Agranulocyte Adhesion and Diapedesis; Airway Pathology in Chronic Obstructive Pulmonary Disease; Altered T Cell and B Cell Signaling in Rheumatoid Arthritis; Aryl Hydrocarbon Receptor Signaling; Atherosclerosis Signaling; Cardiac Hypertrophy Signaling (Enhanced); CDX Gastrointestinal Cancer Signaling Pathway; Cholecystokinin/Gastrin-mediated Signaling; Communication between Innate and Adaptive Immune Cells; Coronavirus Pathogenesis Pathway; Dendritic Cell Maturation; Differential Regulation of Cytokine Production in Intestinal Epithelial Cells by IL-17A and IL-17F; Differential Regulation of Cytokine Production in Macrophages and T Helper Cells by IL-17A and IL-17F; Docosahexaenoic Acid (DHA) Signaling; Erythropoietin Signaling Pathway; FXR/RXR Activation; GADD45 Signaling; Glucocorticoid Receptor Signaling; Graft-versus-Host Disease Signaling; Granulocyte Adhesion and Diapedesis; Granzyme A Signaling; Hepatic Cholestasis; Hepatic Fibrosis / Hepatic Stellate Cell Activation; Hepatic Fibrosis Signaling Pathway; HMGB1 Signaling; IL-10 Signaling; IL-17 Signaling; IL-23 Signaling Pathway; IL-6 Signaling; Immunogenic Cell Death Signaling Pathway; Inflammation pathway; LPS/IL-1 Mediated Inhibition of RXR Function; LXR/RXR Activation; Macrophage Alternative Activation Signaling Pathway; Macrophage Classical Activation Signaling Pathway; Multiple Sclerosis Signaling Pathway; Neuroinflammation Signaling Pathway; Neutrophil Extracellular Trap Signaling Pathway; NF- κ B Signaling; Osteoarthritis Pathway; Oxytocin In Brain Signaling Pathway; p38 MAPK Signaling; Pathogen Induced Cytokine Storm Signaling Pathway; PPAR Signaling; PPAR α /RXR α Activation; Pulmonary Fibrosis Idiopathic Signaling Pathway; Pyroptosis Signaling Pathway; Role Of Chondrocytes In Rheumatoid Arthritis Signaling Pathway; Role of Cytokines in Mediating Communication between Immune Cells; Role of Hypercytokinemia/hyperchemokineemia in the Pathogenesis of Influenza; Role of IL-17F in Allergic Inflammatory Airway Diseases; Role of Macrophages, Fibroblasts and Endothelial Cells in Rheumatoid Arthritis; Role of MAPK Signaling in Inhibiting the Pathogenesis of Influenza; Role of Osteoblasts, Osteoclasts and Chondrocytes in Rheumatoid Arthritis; Role Of Osteoblasts In Rheumatoid Arthritis Signaling Pathway; Role Of Osteoclasts In Rheumatoid Arthritis Signaling Pathway; Role of Pattern Recognition Receptors in Recognition of Bacteria and Viruses; Role of PKR in Interferon Induction and Antiviral Response; Role of Tissue Factor in Cancer; S100 Family Signaling Pathway; STAT3 Pathway; Systemic Lupus Erythematosus In B Cell Signaling Pathway; Systemic Lupus Erythematosus Signaling; Th17 Activation Pathway; Toll-like Receptor Signaling; TREM1 Signaling; Tumor Microenvironment Pathway; Type I Diabetes Mellitus Signaling; Wound Healing Signaling Pathway; Xenobiotic Metabolism AHR Signaling Pathway; Xenobiotic Metabolism Signaling

Targeted By miRNA Functional Cluster:

(showing 50 out of 120)

show all

miR-1178-3p (miRNAs w/seed UGCUAC), miR-1199-5p (and other miRNAs w/seed CUGAGCC), miR-1202 (and other miRNAs w/seed UGCGAGC), miR-1233-5p (and other miRNAs w/seed GUGGGAG), miR-1256 (miRNAs w/seed GCAUUG), miR-1258-1-3p (miRNAs w/seed CGGCUA), miR-1258-5p (and other miRNAs w/seed CCUGAG), miR-1291 (and other miRNAs w/seed GGCCUUG), miR-135a-1-3p (and other miRNAs w/seed AUAGGA), miR-138-5p (miRNAs w/seed CGUGUG), miR-144-3p (miRNAs w/seed ACAGU), miR-149-5p (miRNAs w/seed CUGGUC), miR-152-5p (miRNAs w/seed AGGUUCU), miR-185-5p (and other miRNAs w/seed GGAGAGA), miR-190a-3p (miRNAs w/seed UAUUAU), miR-1912-5p (miRNAs w/seed GCUCAU), miR-1966-5p (miRNAs w/seed AGGGAGC), miR-204-5p (and other miRNAs w/seed UCCUUU), miR-205-3p (miRNAs w/seed AUUUCAG), miR-21-5p (and other miRNAs w/seed AGCUAU), miR-221-5p (and other miRNAs w/seed CCUGGA), miR-2682-5p (and other miRNAs w/seed AGGCAGU), miR-26b-3p (and other miRNAs w/seed CUGUUCU), miR-27b-5p (miRNAs w/seed GAGCUUA), miR-28b (and other miRNAs w/seed GGAGCUC), miR-297a-3p (and other miRNAs w/seed AUACAUA), miR-298-3p (miRNAs w/seed AGGAACU), miR-299a-3p (and other miRNAs w/seed AUGUGGG), miR-29b-5p (and other miRNAs w/seed UGUUUCU), miR-3063-5p (and other miRNAs w/seed GGAGAU), miR-3064-5p (and other miRNAs w/seed CUGGCU), miR-3066-5p (miRNAs w/seed UGUUUGC), miR-3070-2-3p (and other miRNAs w/seed GGUUCUA), miR-3072 (and other miRNAs w/seed GGCCUUG), miR-3083-5p (and other miRNAs w/seed GCGUGG), miR-3084a-3p (and other miRNAs w/seed UCUUGCA), miR-3089-5p (miRNAs w/seed CAGCUUC), miR-30a-3p (and other miRNAs w/seed UUUACAG), miR-3100-3p (miRNAs w/seed UGUAGA), miR-3145-3p (miRNAs w/seed GAUUUU), miR-3147 (miRNAs w/seed GUUGGG), miR-3174 (miRNAs w/seed AGUGAGU), miR-3194-5p (miRNAs w/seed GCGAGCC), miR-3200-5p (miRNAs w/seed AUCUGAG), miR-328-3p (and other miRNAs w/seed UGCGCCU), miR-330-3p (and other miRNAs w/seed CAAAGCA), miR-331-3p (miRNAs w/seed CCCUGG), miR-344a-5p (and other miRNAs w/seed CAGGUC), miR-3473f (miRNAs w/seed AAUAGG), miR-3542 (and other miRNAs w/seed AGGCUUC)...(more)

Targeted By miRNA Family:

mir-21

- Search (Diseases and functions) : Non-small cell lung carcinoma

Genes and Chemicals Diseases and Functions

Add To My Pathway Add To My List Annotations Show Findings Effect on Function **BioProfiler** Activity Plot Show Functions Expand Functions >>

The search for Non-small cell carcinoma matched 1 diseases and functions.

Diseases & Functions

☐ Matching Diseases & Functions

☒ Organismal Injury and Abnormalities

☒ non-small cell carcinoma

> ☒ Non-small cell carcinoma

☐ Cancer

☐ non-small cell carcinoma

> ☐ Non-small cell carcinoma

Associated Molecule

4528

4528

4528



4528

4528

4528

4528

Effect On Function

Add To My Pathway Add To My List Annotations Show Findings   Show Functions Expand Functions

Process # Molecules

☐ 1 Process

☒ Non-small cell carcinoma 4528

> ☐ affects Non-small cell carcinoma (4148/4528)

> ☐ decreases Non-small cell carcinoma (427/4528)

> ☐ increases Non-small cell carcinoma (49/4528)

- Search (Diseases and functions) : Non-small cell lung carcinoma
- BioProfiler: Cytokine

BioProfiler

Molecule	Molecule Type	Molecule Activity	Effect on Disease or Function	Disease or Function	Mutation evidence	Biomarker Application	Species Evidence
AIMP1	cytokine	unknown change in activity	affects	Lung squamous cell carcinoma	all 1	unclassified mutation	not applicable
CXCL2	cytokine	decreased activity	affects	Lung adenocarcinoma	all 2	wild type	not applicable
CXCL8	cytokine	increased activity	affects	Non-small cell lung carcinoma	all 1	wild type	efficacy
IFNA10	cytokine	unknown change in activity	affects	Lung squamous cell carcinoma	all 1	missense	not applicable
IFNA8	cytokine	unknown change in activity	affects	Lung adenocarcinoma	all 1	missense	not applicable
IFNG	cytokine	decreased activity, increased activity	affects, increases	Lung adenocarcinoma	all 2	homozygous, knockout, wild type	not applicable
IL10	cytokine	increased activity, unknown change in activity	affects	Lung adenocarcinoma	all 2	heterozygous, nonsense, wild type	not applicable
IL1A	cytokine	increased activity	affects	Non-small cell lung carcinoma	all 1	wild type	efficacy
IL1B	cytokine	increased activity	affects	Advanced non-small cell lung carcinoma	all 24	wild type	not applicable
IL36G	cytokine	unknown change in activity	affects	Lung adenocarcinoma	all 1	missense	not applicable
IL5	cytokine	unknown change in activity	affects	Lung adenocarcinoma	all 1	unclassified mutation	not applicable
IL6	cytokine	increased activity, unknown change in activity	affects	Lung adenocarcinoma	all 3	unclassified mutation, wild type	efficacy, not applicable
NAMPT	cytokine	unknown change in activity	affects	Adenocarcinoma in rhabdoid tumor	all 1	missense	not applicable
PF4V1	cytokine	unknown change in activity	affects	Lung adenocarcinoma	all 1	missense	not applicable
SCG2	cytokine	unknown change in activity	affects	Lung adenocarcinoma	all 1	missense	not applicable
SPP1	cytokine	decreased activity, unknown change in activity	affects	Lung adenocarcinoma	all 1	missense	not applicable
TIMP1	cytokine	decreased activity	affects	Lung adenocarcinoma	all 1	missense	not applicable
TNF	cytokine	decreased activity	affects	Lung adenocarcinoma	all 1	missense	not applicable
TNFSF11	cytokine	decreased activity	affects	Lung adenocarcinoma	all 1	missense	not applicable
TNFSF13	cytokine	decreased activity	affects	Lung adenocarcinoma	all 1	missense	not applicable
WNT2	cytokine	decreased activity	affects	Lung adenocarcinoma	all 1	missense	not applicable
WNT7A	cytokine	decreased activity	affects	Lung adenocarcinoma	all 1	missense	not applicable

Molecule Types

☒ Unfiltered

☐ Genes, RNAs, and Proteins

☐ Drugs and Chemicals

☐ Select from list below

☐ Select all

☐ biologic drug

☐ canonical pathway

☐ chemical - endogenous mammalian

☐ chemical - endogenous non-mammalian

☐ chemical - kinase inhibitor

☐ chemical - other

Molecule Activity

☐ Select all

☐ decreased activity

☐ increased activity

☐ unknown change in activity

Effect on Disease or Function

☐ Select all

☐ affects


☐ decreases

☐ directionality not applicable

☐ increases

- Search : Tumor Microenvironment Pathway

Genes and Chemicals Diseases and Functions **Pathways and Lists**



Add To My Pathway Add To My List View Report Activity Plot Customize Table 

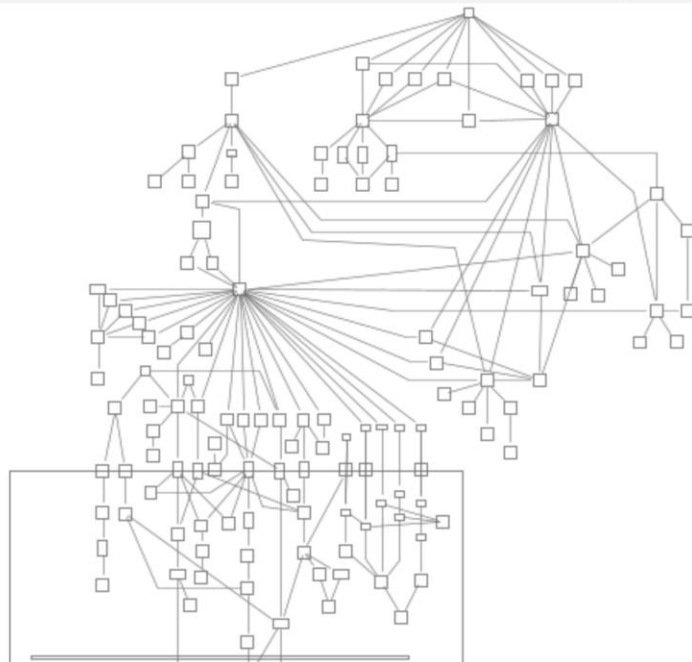
The search for Tumor Microenvironment Pathway matched 1 items.

<input type="checkbox"/>	/	#	Name	Matched Term	Pathway Category Type	Location
<input type="checkbox"/>	0		Tumor Microenvironment Pathway		Cancer	Signaling pathway Libraries > Ingenuity Canonical Pathways > Signaling

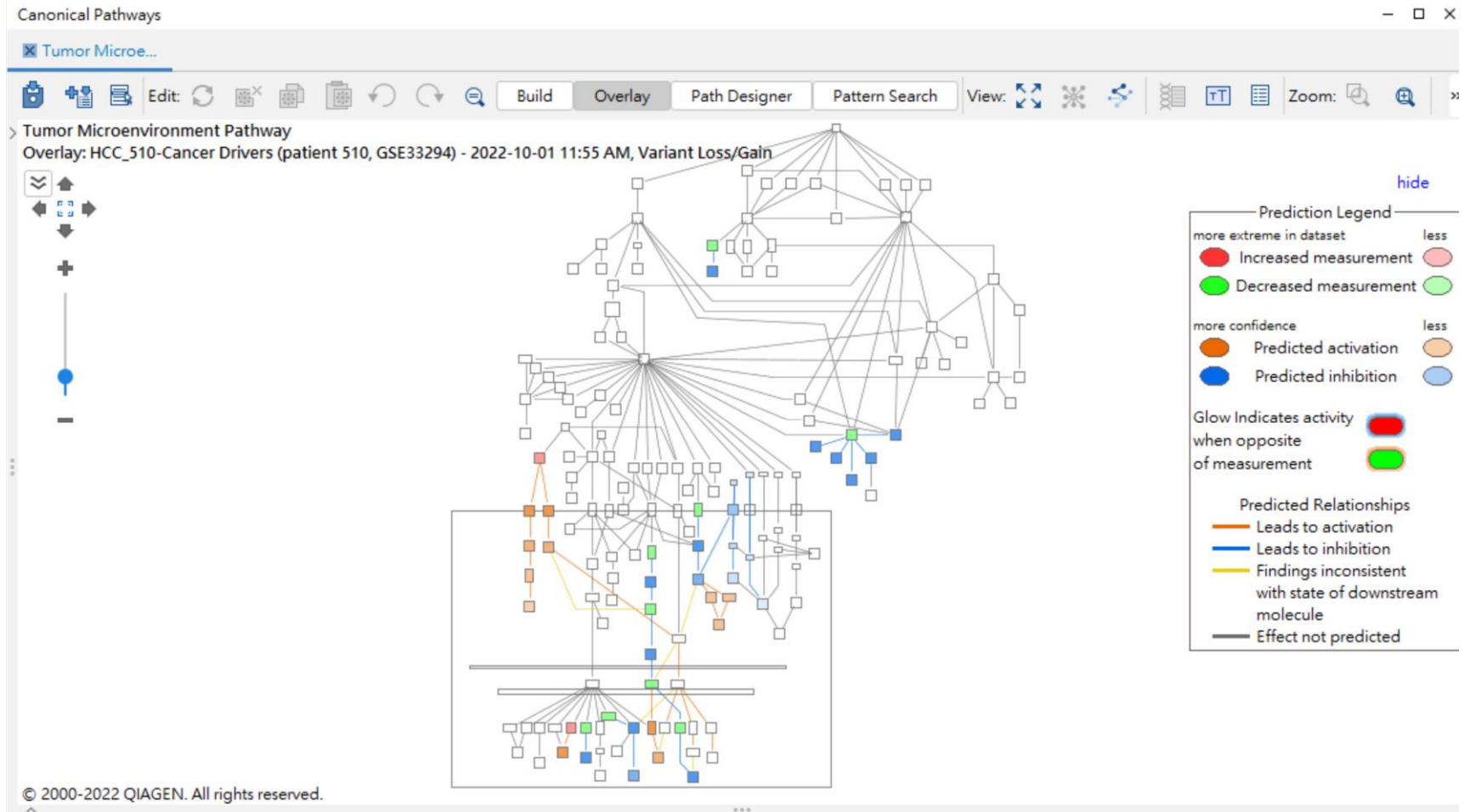
Canonical Pathways

Tumor Microenvironment Pathway

Build Overlay Path Designer Pattern Search View:  Zoom: 



- Search : Tumor Microenvironment Pathway
- pathway overlay



- Search : non small cell lung carcinoma

Search Results

Genes and Chemicals

Diseases and Functions

Pathways and Lists

Datasets and Analyses

Search Results

Showing first 10000 results out of 139003 in 3847ms for query [non small cell lung carcinoma]

Folder Types

- dataset (71240)
- analysis (67763)

Projects

- LINCS (51270)

Add to Comparison

Customize Table

Crea...

2022/... - 2022/... (1/250)

<<>>

Name	Type	Creation Date	case.diseasestate
1- normal control [peripheral blood] NA 28292	analysis	2022/10/10 13:46:35	normal control
1- normal control [peripheral blood] NA 28953	analysis	2022/10/10 13:46:16	normal control
1- normal control [peripheral blood] NA 29079	analysis	2022/10/10 13:45:55	normal control
1- normal control [peripheral blood] NA 29411	analysis	2022/10/10 13:45:16	normal control
1- normal control [peripheral blood] NA 3445	analysis	2022/10/10 13:44:31	normal control
1- normal control [peripheral blood] NA 5347	analysis	2022/10/10 13:44:11	normal control
1- normal control [peripheral blood] NA 7009	analysis	2022/10/10 13:43:50	normal control
1- normal control [peripheral blood] NA 7148	analysis	2022/10/10 13:43:31	normal control
1- normal control [peripheral blood] NA 8447	analysis	2022/10/10 13:43:09	normal control
1- normal control [peripheral blood] NA 8492	analysis	2022/10/10 13:42:43	normal control
1- normal control [peripheral blood] NA 8743	analysis	2022/10/10 13:42:23	normal control
1- normal control [peripheral blood] T1D patient serum 13820	analysis	2022/10/10 13:42:03	normal control
1- normal control [peripheral blood] T1D patient serum 13821	analysis	2022/10/10 13:41:40	normal control
1- normal control [peripheral blood] Transfection_TET1 catalytic ...	analysis	2022/10/10 13:41:18	normal control
1- normal control [peripheral blood] VSL3 normal patient plasm...	analysis	2022/10/10 13:40:53	normal control
1- normal control [peripheral blood] aAPC_A2 loaded with A2_...	analysis	2022/10/10 13:40:26	normal control
1- normal control [peripheral blood] abatacept treated T1D patie...	analysis	2022/10/10 13:39:58	normal control
1- normal control [peripheral blood] all-trans retinoic acid (ATR...	analysis	2022/10/10 13:38:53	normal control
1- normal control [peripheral blood] anakinra T1D patient plasm...	analysis	2022/10/10 13:38:34	normal control

Libraries > OmicSoft > DiseaseLand > HumanDisease > Analyses

1- normal control [peripheral blood] NA 28292

Case/Control Differences

Key	Case	Control
celldescription	CD56brightCD16- peripheral blood NK cell	CD56brightCD16- decidua NK cell
diseasestate	normal control	disease control
tissue	peripheral blood	decidua

Comparison Context

cellmarkers	CD3-CD56brightCD16-
celltype	NK cell
comparisoncategory	CellType1 vs. CellType2
comparisoncontrast	CellDescription => CD56brightCD16- peripheral blood NK cell vs CD56brightCD16- decidua NK cell
organism	human
platformname	Affymetrix.HG-U133A
treatment	NA

All Experiment Metadata

case.celldescription	CD56brightCD16- peripheral blood NK cell
case.cellmarkers	CD3-CD56brightCD16-

Live Demo

Case Study: Investigating the tumor microenvironment

Construct networks based on key targets and predict molecule activity

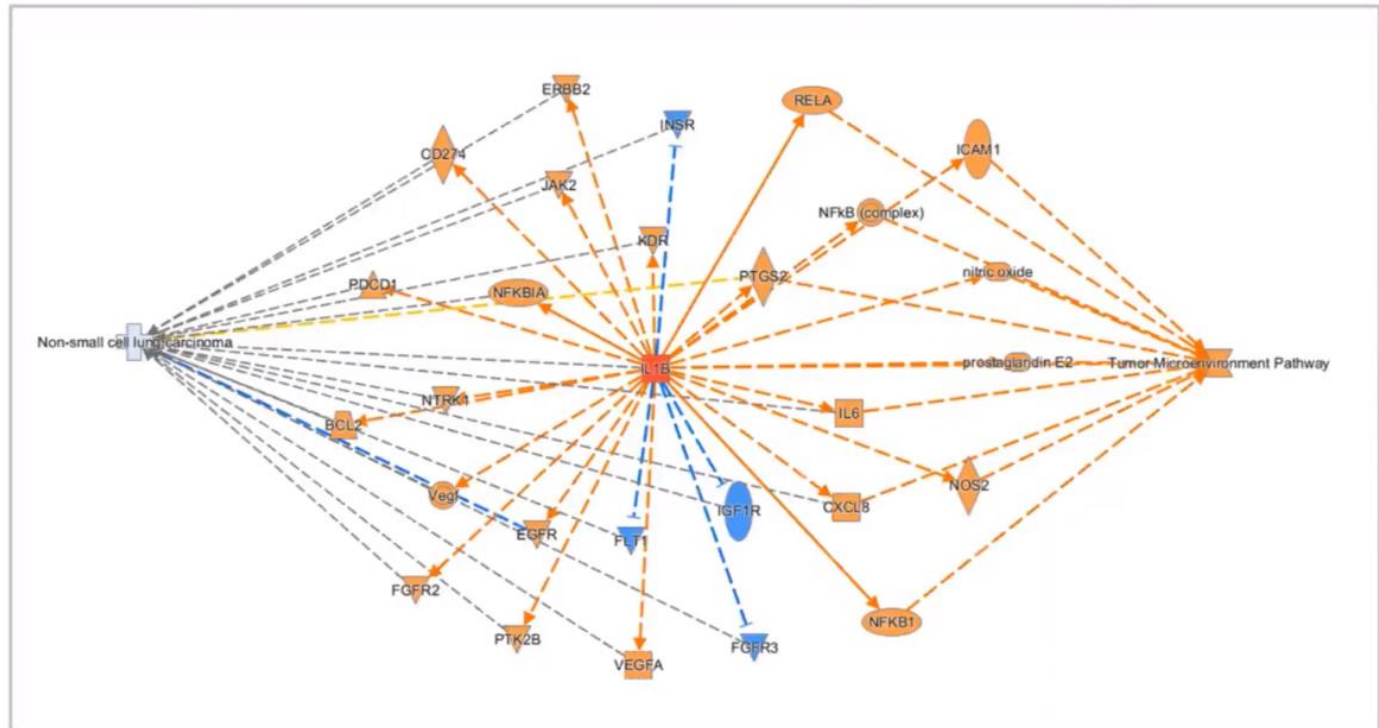
Review > Curr Pharm Des. 2017;23(32):4893-4905. doi: 10.2174/1381612823666170613080919.

Targeting the Tumor Microenvironment by Intervention in Interleukin-1 Biology

Elena Voronov¹, Ron N Apte¹

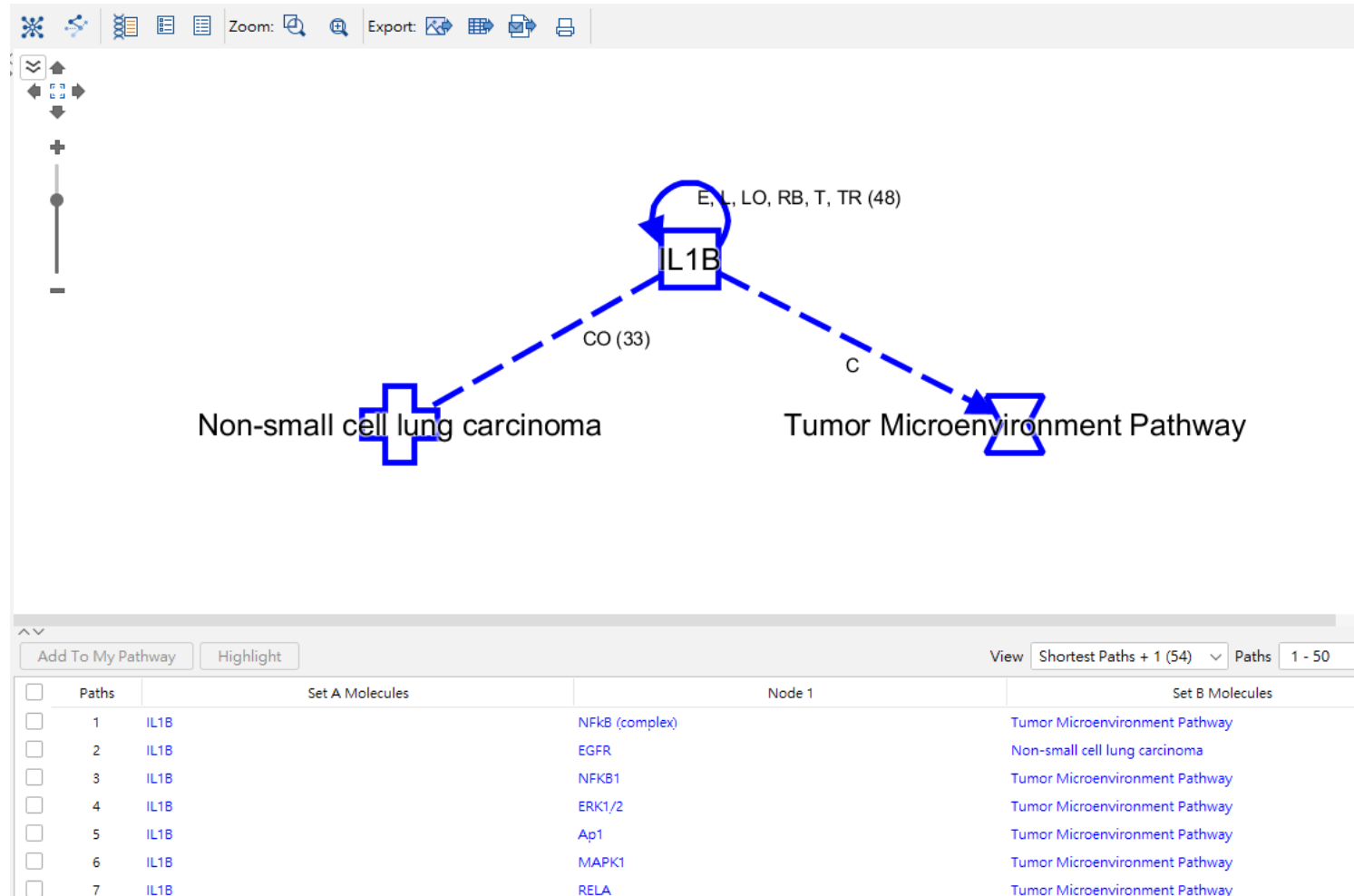
Affiliations + expand

PMID: 28606052 DOI: 10.21

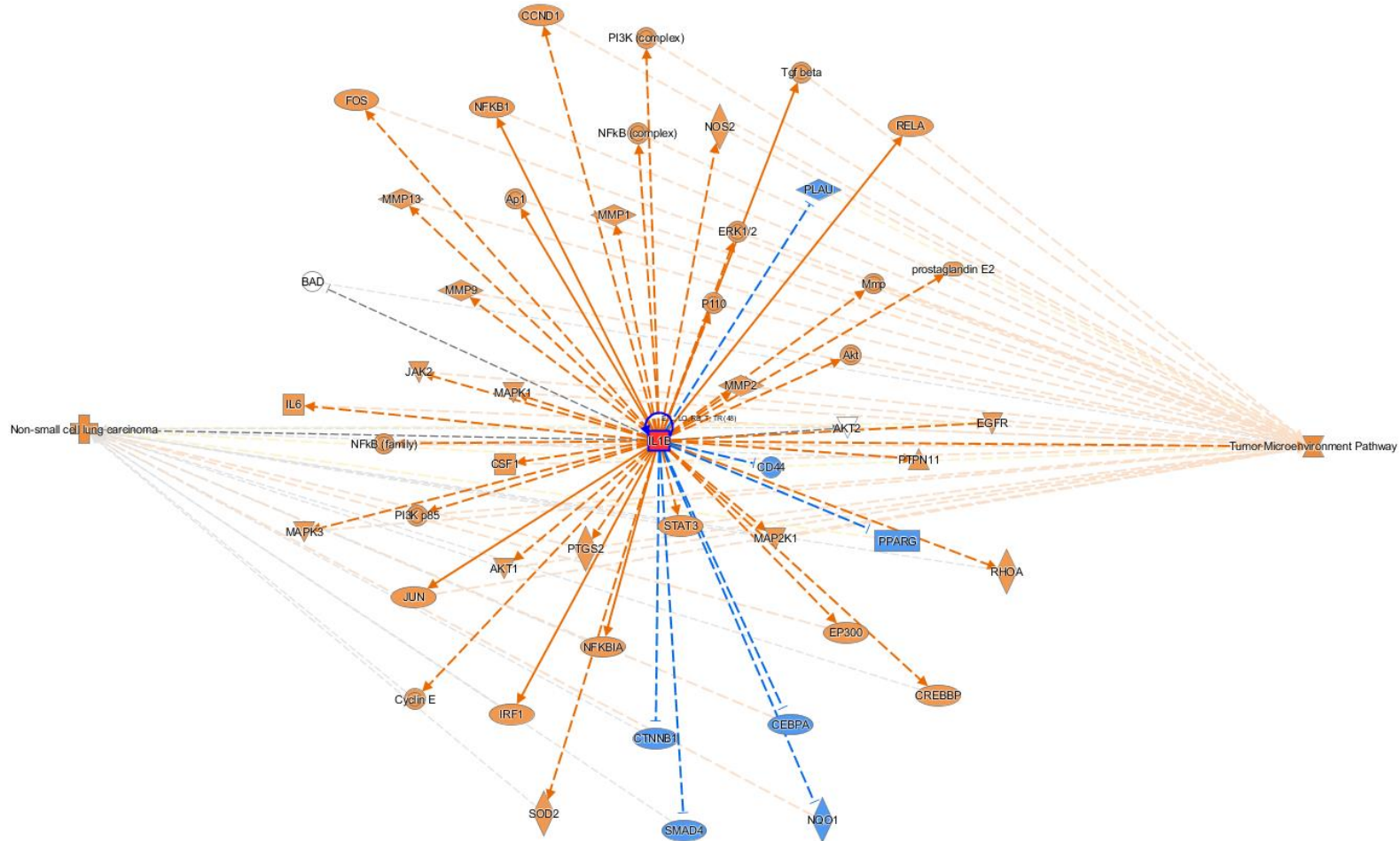


Build networks linking molecules to the TME and disease endpoints

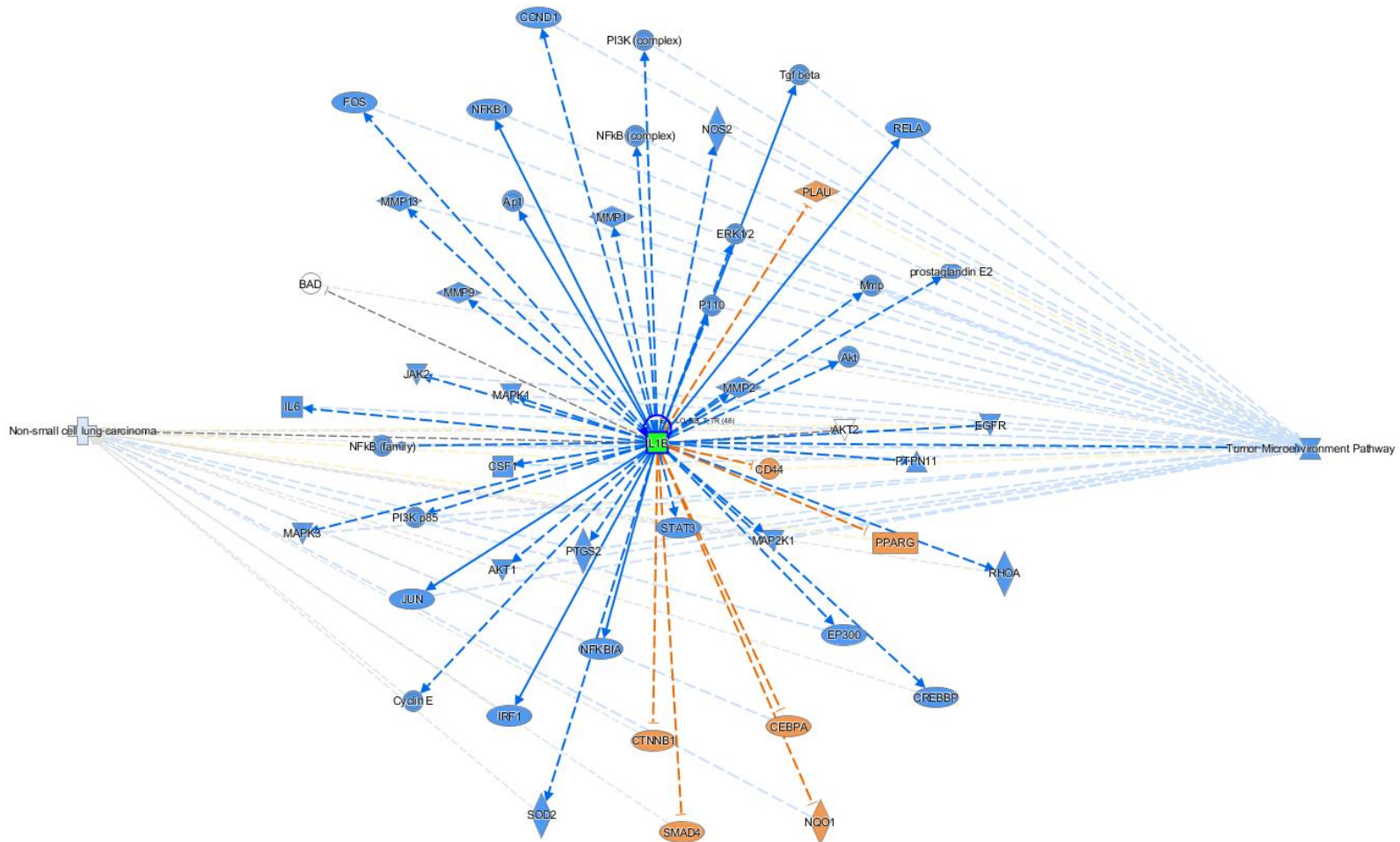
- Search: IL1B 、 Non-small cell lung carcinoma 、 Tumor Microenvironment Pathway(TME)
- Path Explore: activation 、 causation 、 inhibition



- MAP: IL1B **Increased**
- Lead to Tumor Microenvironment Pathway **activation**
- Correlation Non-small cell lung carcinoma **activation**



- MAP: IL1B **Decreased**
- Lead to Tumor Microenvironment Pathway **inhibition**
- Correlation Non-small cell lung carcinoma **inhibition**



Live Demo

Data Upload

- ID 、 Observation
- Annotated Dataset

- Create Core Analysis
 - Expression type
 - Measurement type
- Create Expression Analysis
 - Criteria
 - Cutoffs

- Summary
- Diseases/Disorders
- Canonical Pathways
- Upstream regulators
- Interaction Network

Dataset Preparation



Analyze Dataset



Expression Analysis

Formatting transcriptomics data before uploading to IPA

IDs (required)

Ratio, fold change, etc. (recommended)

Significance (optional)

	A	B	C	D	E
	geneid	UCvsNormal.Log2FoldChange	UCvsNormal.pval	52wksVedolizumabvsBaseline.Log2FoldChange	52wksVedolizumabvsBaseline.pval
1	DDX11L1	-0.1067	0.2878	0.1183	0.1624
2	WASH7P	-0.1883	0.0097	0.3063	0.0006
3	FAM138F	-0.0761	0.4699	0.2466	0.0191
4	OR4F5	0.1474	0.5311	0.1713	0.2913
5	LOC729737	0.4789	0.0017	0.029	0.8331
6	LOC100133331	0.4789	0.0017	0.029	0.8331
7	LOC100132062	0.4789	0.0017	0.029	0.8331
8	OR4F29	0.2495	0.2389	0.2181	0.1887
9	JA429831	0.1215	0.3338	0.2556	0.0004

Observation 1

Observation 2

Common identifier types

- Arrays from Affymetrix, Illumina, etc.
- Gene symbols (Entrez or HUGO)
- Ensembl, RefSeq, UCSC, etc.

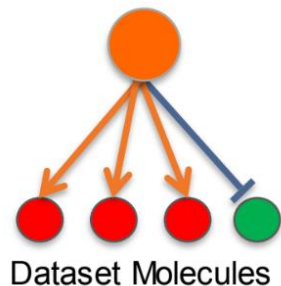
Accepted file formats

- .txt (tab-delimited text files)
- .xls, .xlsx, .csv (Excel tables)
- .diff (Cuffdiff output)

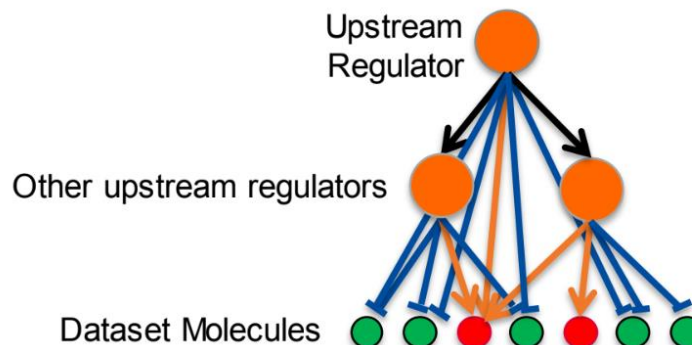
IDs are the only **required** column

Change measurements are needed for IPA to make activity predictions

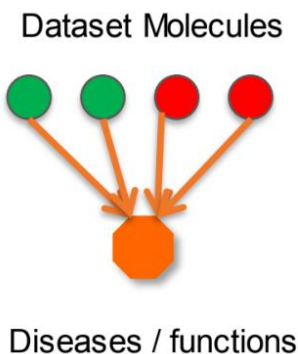
Upstream Analysis



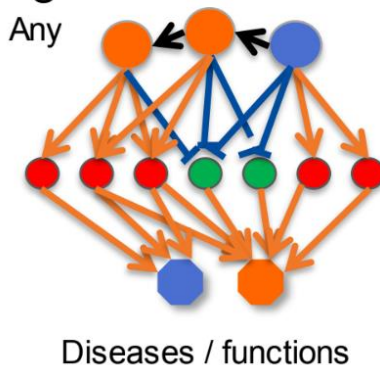
Mechanistic Network of Upstream Regulators



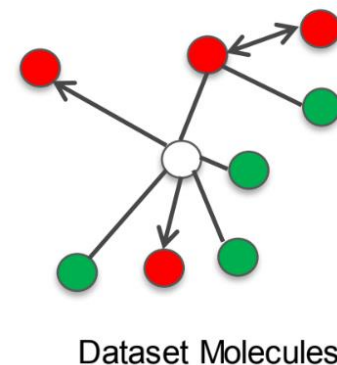
Function Analysis



Regulator Effect Network



Interaction Network



IPA

File Edit View Window Help

Genes and Chemicals Diseases and Functions Pathways and Lists Datasets and Analyses

Create New...

Enter gene names/symbols/IDs or chemical/drug names here

Search Advanced Search

QIAGEN Land Explorer

Project Manager

A-Z Sort Refresh

My Projects

- Training Project
- Human Genes Chromosomal Location
- QIAGEN Coronavirus Networks
- Ingenuity KEGG gene lists
- Tissue Expression
- Example Analyses
- Training
- Shared Projects
- Libraries

Quick Start

News

Exploring large public data resources through IPA

Exploring IPA knowledge

Analyzing mRNA or proteomics data

Analyzing microRNA data

Analyzing phosphoproteomics data

Analyzing genetic gain/loss data

Analyzing metabolomics data

Case studies and Support webinars

Top help articles and FAQs

Contacting Support

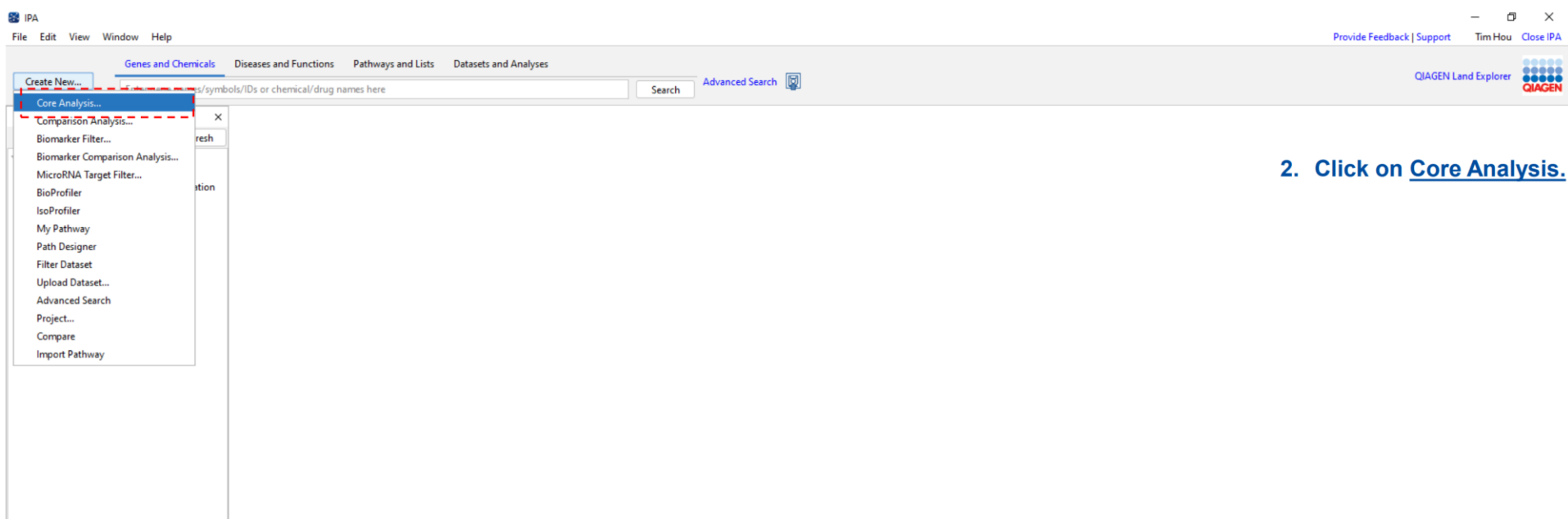
Shortcuts

News

- Check out our NEW detailed [gene expression analysis tutorial](#).
- The IPA downtime for the upcoming **IPA 2022 Summer release** has been scheduled for:
 - Pacific Daylight Time: Friday, June 24th 6 p.m. through Sunday, June 26th, 12 p.m. PST (Noon)
 - Central European Summer Time: Saturday, June 25th, 2 a.m. through Sunday, June 26th, 9 p.m.
 - Japan Standard Time: Saturday, June 25th, 9 a.m. through Monday, June 27th, 4 a.m.
 - China update set for CST (Beijing): Friday, June 24th, 10 p.m. through Sunday, June 26th, 6 p.m.
- If you are new to IPA or taking a trial please see: [IPA Trial Resources](#).
- Pave your way to greatness using advanced pathway analysis: [Learn more](#).
- Read our [news](#) and sign up for our newsletter.
- Search Google Scholar for [publications that cite IPA](#).
- [Watch a webinar](#) about the new (and free!) **Coronavirus Network Explorer** web app built by the QIAGEN Digital Insights team in part using Machine Learning. The same networks are also available in IPA. Look in the lower portion of the IPA Project Manager for a folder called "QIAGEN Coronavirus Networks".
- See the latest IPA news on [LinkedIn](#) or [Twitter](#).

☐ Don't Show at Startup

1. Click on Create New.



IPA

File Edit View Window Help

Genes and Chemicals Diseases and Functions Pathways and Lists Datasets and Analyses

Create New... Search Advanced Search

Core Analysis...

Comparison Analysis...

Biomarker Filter...

Biomarker Comparison Analysis...

MicroRNA Target Filter...

BioProfiler

IsoProfiler

My Pathway

Path Designer

Filter Dataset

Upload Dataset...

Advanced Search

Project...

Compare

Import Pathway

Provide Feedback | Support Tim Hou Close IPA

QIAGEN Land Explorer

QIAGEN

2. Click on Core Analysis.

IPA

File Edit View Window Help

Genes and Chemicals Diseases and Functions Pathways and Lists Datasets and Analyses

Create New... Enter gene names/symbols/IDs or chemical/drug names here Search Advanced Search

Project Manager

A-Z Sort Refresh

My Projects

- Training Project
- Human Genes Chromosomal Location
- QIAGEN Coronavirus Networks
- Ingenuity KEGG gene lists
- Tissue Expression
- Example Analyses
- Training
- Shared Projects
- Libraries

Create Core Analysis

Upload

My Projects

- Training Project
- Shared Projects

Next

3. Click on Upload button.

4. Select the dataset file (.txt, .xls, .xlsx, .csv, or .diff) from your computer and click the Open button.

Create New...

Enter gene names/symbols/IDs or chemical/drug names here

Search

Advanced Search

Genes and Chemicals

Diseases and Functions

Pathways and Lists

Datasets and Analyses

Dataset Upload - GSE73661-UCVZ with pval.xlsx

1. Select File Format:

Flexible Format

2. Contains Column Header:

Yes

No

3. Select Identifier Type:

Please assign at least one column below as "ID", and assign the identifier type(s).
Assign additional columns as ID to improve mapping coverage if desired.

4. Array platform used for experiments:

Not specified/applicable

Select relevant array platform as a reference set for data analysis.

5. Use the dropdown menus to specify the column names that contain identifiers and observations. For observations, select the appropriate measurement value type.

Raw Data (21563)

Dataset Summary (0)

Metadata

Edit Observation Names

Infer Observations

ID/Observation Name	Ignore	Ignore	Ignore	Ignore	Ignore
Measurement/Annotation					
1	geneid	UCVsNormal.Log2F...	UCVsNormal.pval	52wksVedolizumab...	52wksVedolizumab...
2	DDX11L1	-0.1067	0.2878	0.1183	0.16239999999999999
3	WASH7P	-0.1883	9.700000000000000...	0.30630000000000002	5.9999999999999995...
4	FAM138F	-7.610000000000000...	0.46989999999999998	0.24660000000000001	1.9099999999999999...
5	ORAF5	0.1474	0.53110000000000002	0.17130000000000001	0.2913
6	LOC279737	0.47889999999999999	1.6999999999999999	2.9000000000000000...	0.83309999999999995
7	LOC100133331	0.47889999999999999	1.6999999999999999	2.9000000000000000...	0.83309999999999995
8	LOC100132062	0.47889999999999999	1.6999999999999999	2.9000000000000000...	0.83309999999999995
9	ORAF29	0.2495	0.2389	0.21809999999999999	0.18870000000000001
10	JA429831	0.1215	0.33379999999999999	0.25559999999999999	4.0000000000000002...
11	JB137814	-0.674000000000000...	1.6381E-6	0.13919999999999999	0.3422
12	M37726	-1.05509999999999999	5.7599999999999999	0.33679999999999999	2.3400000000000001...
13	LINC00115	-0.1666	2.100000000000000...	0.14630000000000001	0.06
14	LOC643837	0.10249999999999999	0.30209999999999998	8.5099999999999999...	8.8000000000000005...
15	FAM41C	0.20979999999999999	0.25540000000000002	0.1237	7.9299999999999995...
16	SAMD11	-5.519999999999999...	0.4088	-1.750000000000000...	0.78839999999999999
17	NOZCL	0.34079999999999999	1.2575E-6	-5.580000000000000...	0.44040000000000001
18	KLHL17	0.1497	8.200000000000000...	-7.109999999999999...	0.25679999999999997
19	PLEKHN1	0.14630000000000001	8.800000000000000...	-5.33E-2	0.35730000000000001
20	C1orf170	-0.164899999999999...	8.500000000000000...	0.11650000000000001	7.0499999999999993...
21	HES4	0.12740000000000001	5.399999999999999...	-2.63E-2	0.69310000000000005
22	ISG15	0.33200000000000002	4.516700000000000...	-0.227000000000000...	4.5999999999999999...
23	AGR1	0.81640000000000001	4.414299999999999...	-0.310699999999999...	1E-3
24	C1orf159	-8.060000000000000...	0.16139999999999999	9.2899999999999999...	0.13400000000000001
25	JA715134	-0.2087	0.1124	0.3785	2.500000000000000...
26	TLL10	-8.649999999999999...	0.2422	0.1138	0.13350000000000001

5. Select **Flexible Format** for the file format from the dropdown menu if it is not already selected.

6. Assign an **Array Platform** used for the dataset, if applicable.

Dataset Upload Workflow Instructions

Data Upload Workflow

Use Dataset Upload to import your dataset file into IPA. Once uploaded, many different analysis options exist including the Biomarker Filter, Tox and Core Analyses.

1. To upload a dataset file, [click here](#).

Open

Look in: My Dataset for Upload

File Name: GSE73661-UCVZ with pval.xlsx

File of Type: All Files

Open Cancel

2. Select the dataset file (.txt, .xls, .xlsx, .csv, or .diff) from your computer and click the **Open** button.

3. Select **Flexible** format for the file format from the dropdown menu if it is not already selected.

4. Assign an **array platform** used for the dataset, if applicable. Assigning the appropriate array platform improves the accuracy of the statistics by assigning the platform as the reference set or "universe" of all possible measured molecules for that dataset. Leave as "Not specified/applicable" for RNA-seq, metabolomics, or phosphoproteomics datasets.

5. If your dataset is fairly simple (without many extraneous columns that you intend to ignore) click the **Infer Observations** button. IPA will try to automatically assign the columns for you. If this is successful, you may opt to assign additional ID columns (see step 5) or just skip to step 9. If Infer Observations is unsuccessful, just click the button again to toggle it off.

6. Assign at least one column as an **identifier column** ("ID") from the dropdown menu, then select its identifier type(s) in the secondary dropdown menu. IPA supports many identifiers and symbols and will attempt to guess the type of identifier in your dataset file if the identifiers are in the **left-most column**. To override the selection, uncheck the option and simply select the most appropriate identifier type. If more than one type of identifier exists in your dataset, select all types that are appropriate, but refrain from selecting all identifier types at once as it can lead to mis-mapping.

Dataset Summary

1. Select File Format:

Flexible Format

2. Contains Column Header:

Yes

No

3. Select Identifier Type:

Please assign at least one column below as "ID", and assign the identifier type(s).
Assign additional columns as ID to improve mapping coverage if desired.

4. Array platform used for experiments:

Not specified/applicable

Select relevant array platform as a reference set for data analysis.

5. Use the dropdown menus to specify the column names that contain identifiers and observations. For observations, select the appropriate measurement value type.

Raw Data (21563)

Dataset Summary (0)

Metadata

Edit Observation Names

Infer Observations

ID/Observation Name	Ignore	Ignore	Ignore	Ignore	Ignore
Measurement/Annotation					
1	geneid	UCVsNormal.Log2F...	UCVsNormal.pval	52wksVedolizumab...	52wksVedolizumab...
2	DDX11L1	-0.1067	0.2878	0.1183	0.16239999999999999
3	WASH7P	-0.1883	9.700000000000000...	0.30630000000000002	5.9999999999999995...
4	FAM138F	-7.610000000000000...	0.46989999999999998	0.24660000000000001	1.9099999999999999...
5	ORAF5	0.1474	0.53110000000000002	0.17130000000000001	0.2913
6	LOC279737	0.47889999999999999	1.6999999999999999	2.9000000000000000...	0.83309999999999995
7	LOC100133331	0.47889999999999999	1.6999999999999999	2.9000000000000000...	0.83309999999999995
8	LOC100132062	0.47889999999999999	1.6999999999999999	2.9000000000000000...	0.83309999999999995
9	ORAF29	0.2495	0.2389	0.21809999999999999	0.18870000000000001
10	JA429831	0.1215	0.33379999999999999	0.25559999999999999	4.0000000000000002...
11	JB137814	-0.674000000000000...	1.6381E-6	0.13919999999999999	0.3422
12	M37726	-1.05509999999999999	5.7599999999999999	0.33679999999999999	2.3400000000000001...
13	LINC00115	-0.1666	2.100000000000000...	0.14630000000000001	0.06
14	LOC643837	0.10249999999999999	0.30209999999999998	8.5099999999999999...	8.8000000000000005...
15	FAM41C	0.20979999999999999	0.25540000000000002	0.1237	7.9299999999999995...
16	SAMD11	-5.519999999999999...	0.4088	-1.750000000000000...	0.78839999999999999
17	NOZCL	0.34079999999999999	1.2575E-6	-5.580000000000000...	0.44040000000000001
18	KLHL17	0.1497	8.200000000000000...	-7.109999999999999...	0.25679999999999997
19	PLEKHN1	0.14630000000000001	8.800000000000000...	-5.33E-2	0.35730000000000001
20	C1orf170	-0.164899999999999...	8.500000000000000...	0.11650000000000001	7.0499999999999993...
21	HES4	0.12740000000000001	5.399999999999999...	-2.63E-2	0.69310000000000005
22	ISG15	0.33200000000000002	4.516700000000000...	-0.227000000000000...	4.5999999999999999...
23	AGR1	0.81640000000000001	4.414299999999999...	-0.310699999999999...	1E-3
24	C1orf159	-8.060000000000000...	0.16139999999999999	9.2899999999999999...	0.13400000000000001
25	JA715134	-0.2087	0.1124	0.3785	2.500000000000000...
26	TLL10	-8.649999999999999...	0.2422	0.1138	0.13350000000000001

IPA

File Edit View Window Help

Genes and Chemicals

Diseases and Functions

Pathways and Lists

Datasets and Analyses

Create New...

Enter gene names/symbols/IDs or chemical/drug names here

Search

Advanced Search

QIAGEN Land Explorer

Dataset Upload - GSE73661-UC VDX with pval.xlsx

1. Select File Format:

Flexible Format

2. Contains Column Header:

Yes

No

3. Select Identifier Type:

Please assign at least one column below as "ID", and assign the identifier type(s).

Assign additional columns as ID to improve mapping coverage if desired.

4. Array platform used for experiments:

Not specified/applicable

Select relevant array platform as a reference set for data analysis.

5. Use the dropdown menus to specify the column names that contain identifiers and observations. For observations, select the appropriate measurement value type.

Raw Data (21563)

Dataset Summary (20250)

Metadata

Edit Observation Names

Infer Observations

ID/Observation Name	ID	Ignore	Ignore	Ignore	Ignore
Measurement/Annotation	2 types selec...				
1	geneid	UCVsNormal.Log2F...	UCVsNormal.pval	52wksVedolizumab...	52wksVedolizumab...
2	DDX11E1	-0.1067	0.2878	0.1183	0.16239999999999999
3	WASH7P	-0.1883	9.700000000000000...	0.30630000000000002	5.9999999999999995...
4	FAM138F	-7.610000000000000...	0.46989999999999998	0.24660000000000001	1.9099999999999999...
5	OR4F5	0.1474	0.53110000000000002	0.17130000000000001	0.2913
6	LOC729737	0.47889999999999999	1.6999999999999999...	2.9000000000000000...	0.83309999999999995
7	LOC100133331	0.47889999999999999	1.6999999999999999...	2.9000000000000000...	0.83309999999999995
8	LOC100132062	0.47889999999999999	1.6999999999999999...	2.9000000000000000...	0.83309999999999995
9	OR4F29	0.2495	0.2389	0.21809999999999999	0.18870000000000001
10	JA429831	0.1215	0.33379999999999999	0.25559999999999999	4.0000000000000002...
11	JB137814	-0.674000000000000...	1.6381E-6	0.13919999999999999	0.3422
12	M37726	-1.0550999999999999	5.7599999999999999...	0.33679999999999999	2.3400000000000001...
13	LINC00115	-0.1666	2.100000000000000...	0.14630000000000001	0.06
14	LOC643837	0.10249999999999999	0.30209999999999998	8.5099999999999999...	8.8000000000000005...
15	FAM41C	0.20979999999999999	0.25540000000000002	0.1237	7.9299999999999995...
16	SAMD11	-5.519999999999999...	0.4088	-1.750000000000000...	0.78839999999999999
17	NOC2L	0.34079999999999999	1.2575E-6	-5.580000000000000...	0.44040000000000001
18	KLHL17	0.1497	8.200000000000000...	-7.109999999999999...	0.25679999999999997
19	PLEKHN1	0.14630000000000001	8.800000000000000...	-5.33E-2	0.35730000000000001
20	Ctcf170	-0.164899999999999...	8.500000000000000...	0.11650000000000001	7.0499999999999993...
21	HES4	0.12740000000000001	5.399999999999999...	-2.63E-2	0.69310000000000005
22	ISG15	0.33200000000000002	4.516700000000000...	-0.227000000000000...	4.5999999999999999...
23	AGRN	0.81640000000000001	4.414299999999999...	-0.310699999999999...	1E-3
24	Ctcf159	-8.060000000000000...	0.16139999999999999	9.289999999999999...	0.13400000000000001
25	JA715134	-0.2087	0.1124	0.3785	2.5000000000000001...
26	TTL10	-8.649999999999999...	0.2422	0.1138	0.13350000000000001

Save

Cancel

Help

7. Assign at least one column as an identifier column ("ID") from the dropdown menu.

1. Select File Format: Flexible Format
2. Contains Column Header: Yes No
3. Select Identifier Type: Please assign at least one column below as "ID", and assign the identifier type(s). Assign additional columns as ID to improve mapping coverage if desired.
4. Array platform used for experiments: Not specified/applicable Select relevant array platform as a reference set for data analysis.
5. Use the dropdown menus to specify the column names that contain identifiers and observations. For observations, select the appropriate measurement value type.

ID/Observation Name	ID	Ignore	Ignore	Ignore	Ignore
Measurement/Annotation	2 types selec...				
1	<input type="checkbox"/> CAS Registry Number				
2	<input type="checkbox"/> CodeLink				
3	<input type="checkbox"/> dbSNP				
4	<input type="checkbox"/> Ensembl				
5	<input type="checkbox"/> Entrez Gene				
6	<input checked="" type="checkbox"/> GeneBank				
7	<input checked="" type="checkbox"/> Gene Symbol - human (HUGO / HGNC / Entrez Gene)				
8	<input type="checkbox"/> Gene Symbol - mouse (Entrez Gene)				
9	<input type="checkbox"/> Gene Symbol - rat (Entrez Gene)				
10	<input type="checkbox"/> GenePept				
11	<input type="checkbox"/> GI Number				
12					
13	LINC00115	-0.1666	2.1000000000000000...	0.146300000000000001	0.06
14	LOC643837	0.10249999999999999	0.30209999999999998	8.509999999999999...	8.8000000000000005...
15	FAM41C	0.20979999999999999	0.25540000000000002	0.1237	7.929999999999995...
16	SAMD11	-5.519999999999999...	0.4088	-1.750000000000000...	0.78839999999999999
17	NOC2L	0.34079999999999999	1.2575E-6	-5.580000000000000...	0.44040000000000001
18	KLHL17	0.1497	8.200000000000000...	-7.109999999999999...	0.25679999999999997
19	PLEKHN1	0.14630000000000001	8.800000000000000...	-5.33E-2	0.35730000000000001
20	CTorf170	-0.164899999999999...	8.500000000000000...	0.11650000000000001	7.0499999999999993...
21	HES4	0.12740000000000001	5.399999999999999...	-2.63E-2	0.69310000000000005
22	ISG15	0.33200000000000002	4.516700000000000...	-0.227000000000000...	4.599999999999999...
23	AGRN	0.81640000000000001	4.414299999999999...	-0.310699999999999...	1E-3
24	CTorf159	-8.060000000000000...	0.16139999999999999	9.289999999999999...	0.13400000000000001
25	JA715134	-0.2087	0.1124	0.3785	2.50000000000000001...
26	TLL10	-8.649999999999999...	0.2422	0.1138	0.13350000000000001

8. Select the identifier type(s) in the secondary dropdown menu.

IPA

File Edit View Window Help

Provide Feedback | Support Tim Hou Close IPA

Genes and Chemicals Diseases and Functions Pathways and Lists Datasets and Analyses

Create New... Enter gene names/symbols/IDs or chemical/drug names here Search Advanced Search

Dataset Upload - GSE73661-UC VDX with pval.xlsx

1. Select File Format: Flexible Format

2. Contains Column Header: Yes No

3. Select Identifier Type: Please assign at least one column below as "ID", and assign the identifier type(s). Assign additional columns as ID to improve mapping coverage if desired.

4. Array platform used for experiments: Not specified/applicable Select relevant array platform as a reference set for data analysis.

5. Use the dropdown menus to specify the column names that contain identifiers and observations. For observations, select the appropriate measurement value type.

Raw Data (21563) Dataset Summary (20250) Metadata

Edit Observation Names Infer Observations

ID/Observation Name	ID	Observation 1	Observation 1	Observation 2	Observation 2
Measurement/Annotation	2 types selec...	Expr Log Ratio	Expr p-value	Expr Log Ratio	Expr p-value
1	geneid	UCVsNormal.Log2F...	UCVsNormal.pval	52wksVedolizumab...	52wksVedolizumab...
2	DDX11L1	-0.1067	0.2878	0.1183	0.16239999999999999
3	WASH7P	-0.1883	9.7000000000000003...	0.306300000000000002	5.9999999999999995...
4	FAM138F	-7.610000000000000...	0.46989999999999999	0.246600000000000001	1.9099999999999999...
5	OR4F5	0.1474	0.53110000000000002	0.171300000000000001	0.2913
6	LOC729737	0.47889999999999999	1.6999999999999999...	2.9000000000000000...	0.83309999999999995
7	LOC100133331	0.47889999999999999	1.6999999999999999...	2.9000000000000000...	0.83309999999999995
8	LOC100132062	0.47889999999999999	1.6999999999999999...	2.9000000000000000...	0.83309999999999995
9	OR4F29	0.2495	0.2389	0.21809999999999999	0.188700000000000001
10	JA429831	0.1215	0.33379999999999999	0.25559999999999999	4.00000000000000002...
11	JB137814	-0.674000000000000...	1.6381E-6	0.13919999999999999	0.3422
12	M37726	-1.05509999999999999	5.7599999999999999...	0.33679999999999999	2.34000000000000001...
13	LINC00115	-0.1666	2.1000000000000001...	0.146300000000000001	0.06
14	LOC643837	0.10249999999999999	0.30209999999999999	8.5099999999999999...	8.80000000000000005...
15	FAM41C	0.20979999999999999	0.25540000000000002	0.1237	7.9299999999999995...
16	SAMD11	-5.519999999999999...	0.4088	-1.750000000000000...	0.78839999999999999
17	NOC2L	0.34079999999999999	1.2575E-6	-5.580000000000000...	0.440400000000000001
18	KLHL17	0.1497	8.2000000000000007...	-7.109999999999999...	0.25679999999999997
19	PLEKHN1	0.146300000000000001	8.8000000000000005...	-5.33E-2	0.357300000000000001
20	Ctorf170	-0.164899999999999...	5.5000000000000006...	0.116500000000000001	7.0499999999999993...
21	HES4	0.127400000000000001	5.399999999999999...	-2.63E-2	0.69310000000000005
22	ISG15	0.33200000000000002	4.5167000000000003...	-0.227000000000000...	4.5999999999999999...
23	AGR1	0.816400000000000001	4.414299999999999...	-0.310699999999999...	1E-3
24	Ctorf159	-8.060000000000000...	0.16139999999999999	9.289999999999999...	0.134000000000000001
25	JA715134	-0.2087	0.1124	0.3785	2.5000000000000001...
26	TTL10	-8.649999999999999...	0.2422	0.1138	0.133500000000000001

Save Cancel Help

9. Assign all the measurements as "Observation 1" (or the name chosen by Infer Observations) if they represent different value types for one "comparison."

10. If your dataset contains multiple comparisons (observations), then you will need to assign each batch of additional columns to Observation 2, Observation 3, etc.

IPA

File Edit View Window Help

Provide Feedback | Support Tim Hou Close IPA

Genes and Chemicals Diseases and Functions Pathways and Lists Datasets and Analyses

Create New... Enter gene names/symbols/IDs or chemical/drug names here Search Advanced Search

QIAGEN Land Explorer

Dataset Upload - GSE73661-UC VDX with pval.xlsx

1. Select File Format: Flexible Format

2. Contains Column Header: Yes No

3. Select Identifier Type: Please assign at least one column below as "ID", and assign the identifier type(s). Assign additional columns as ID to improve mapping coverage if desired.

4. Array platform used for experiments: Not specified/applicable Select relevant array platform as a reference set for data analysis.

5. Use the dropdown menus to specify the column names that contain identifiers and observations. For observations, select the appropriate measurement value type.

Raw Data (21563) Dataset Summary (20250) Metadata

Edit Observation Names Infer Observations

ID/Observation Name	ID	Observation 1	Observation 1	Observation 2	Observation 2
Measurement/Annotation	2 types selec...	Expr Log Ratio	Expr p-value	Expr Log Ratio	Expr p-value
1	geneid	Expr Log Ratio	Expr p-value	32wksVedolizumab...	52wksVedolizumab...
2	DDX11L1	Expr False Discovery Rate (q-value)	Expr p-value	0.1183	0.16239999999999999
3	WASH7P	Expr Intensity/FPKM/Counts	Expr p-value	0.30630000000000002	5.9999999999999995
4	FAM138F	Expr Other	Expr p-value	0.24660000000000001	1.9099999999999999
5	OR4F5	Variant Loss/Gain	Expr p-value	0.17130000000000001	0.2913
6	LOC729737	Variant ACMG Classification	Expr p-value	0.9000000000000000...	0.83309999999999995
7	LOC100133331	Phospho Ratio	Expr p-value	0.9000000000000000...	0.83309999999999995
8	LOC100132062	Phospho Fold Change	Expr p-value	0.9000000000000000...	0.83309999999999995
9	OR4F29	Phospho Log Ratio	Expr p-value	0.21809999999999999	0.18870000000000001
10	JA429831	Phospho p-value	Expr p-value	0.25559999999999999	4.0000000000000002
11	JB137814	Phospho False Discovery Rate (q-value)	Expr p-value	0.13919999999999999	0.3422
12	M37726	Expr Log Ratio	Expr p-value	-1.05509999999999999	5.7599999999999999...
13	LINC00115	Expr Log Ratio	Expr p-value	-0.1666	2.1000000000000001...
14	LOC643837	Expr Log Ratio	Expr p-value	0.10249999999999999	0.30209999999999998
15	FAM41C	Expr Log Ratio	Expr p-value	0.20979999999999999	0.25540000000000002
16	SAMD11	Expr Log Ratio	Expr p-value	-5.5199999999999999...	0.4088
17	NOCL2	Expr Log Ratio	Expr p-value	0.34079999999999999	1.2575E-6
18	KLHL17	Expr Log Ratio	Expr p-value	0.1497	8.2000000000000007...
19	PLEKHN1	Expr Log Ratio	Expr p-value	0.14630000000000001	8.8000000000000005...
20	C1orf170	Expr Log Ratio	Expr p-value	-0.16489999999999999	8.5000000000000006...
21	HE54	Expr Log Ratio	Expr p-value	0.12740000000000001	5.3999999999999999...
22	IGS15	Expr Log Ratio	Expr p-value	0.33200000000000002	4.5167000000000003...
23	AGRN	Expr Log Ratio	Expr p-value	0.81640000000000001	4.4142999999999999...
24	C1orf159	Expr Log Ratio	Expr p-value	-8.060000000000000...	0.16139999999999999
25	JA715134	Expr Log Ratio	Expr p-value	-0.2087	0.1124
26	TTL10	Expr Log Ratio	Expr p-value	-8.649999999999999...	0.2422

11. Use the dropdown menus to specify the measurement value columns in your file.

Save Cancel Help

IPA

File Edit View Window Help

Provide Feedback | Support Tim Hou Close IPA

Genes and Chemicals Diseases and Functions Pathways and Lists Datasets and Analyses

Create New... Enter gene names/symbols/IDs or chemical/drug names here Search Advanced Search

Dataset Upload - GSE73661-UC VZD with pval.xlsx

1. Select File Format: Flexible Format

2. Contains Column Header: Yes No

3. Select Identifier Type: Please assign at least one column below as "ID", and assign the identifier type(s). Assign additional columns as ID to improve mapping coverage if desired.

4. Array platform used for experiments: Not specified/applicable Select relevant array platform as a reference set for data analysis.

5. Use the dropdown menus to specify the column names that contain identifiers and observations. For observations, select the appropriate measurement value type.

Raw Data (21563) Dataset Summary (20250) Metadata

Edit Observation Names Infer Observations

ID/Measurement/Annotation	UCVsNormal	UCVsNormal.pval	52wksVedolizumab	52wksVedolizumab.pval
1	geneid	UCVsNormal.Log2F...	UCVsNormal.pval	52wksVedolizumab...
2	DX111L1	-0.1067	0.2878	0.1183
3	WASH7P	-0.1883	9.700000000000003...	0.30630000000000002
4	FAM138F	-7.61000000000000...	0.46989999999999998	0.24660000000000001
5	OR4F5	0.1474	0.53110000000000002	0.17130000000000001
6	LOC729737	0.47889999999999999	1.6999999999999999	2.9000000000000000...
7	LOC100133331	0.47889999999999999	1.6999999999999999	2.9000000000000000...
8	LOC100132062	0.47889999999999999	1.6999999999999999	2.9000000000000000...
9	OR4F29	0.2495	0.2389	0.21809999999999999
10	JA429831	0.1215	0.33379999999999999	0.25559999999999999
11	JB137814	-0.674000000000000...	1.6381E-6	0.13919999999999999
12	M37726	-1.05509999999999999	5.75999999999999999	0.33679999999999999
13	LINC00115	-0.1666	2.1000000000000001...	0.14630000000000001
14	LOC643837	0.10249999999999999	0.30209999999999998	8.50999999999999999
15	FAM41C	0.20979999999999999	0.25540000000000002	0.1237
16	SAMD11	-5.519999999999999...	0.4088	-1.750000000000000...
17	NOC2L	0.34079999999999999	1.2575E-6	-5.580000000000000...
18	KLHL17	0.1497	8.2000000000000007...	-7.109999999999999...
19	PLEKHN1	0.14630000000000001	8.8000000000000005...	-5.33E-2
20	C1orf170	-0.164899999999999...	8.5000000000000006...	0.11650000000000001
21	HES4	0.12740000000000001	5.3999999999999999...	-2.63E-2
22	ISG15	0.33200000000000002	4.5167000000000003...	-0.227000000000000...
23	AGRN	0.81640000000000001	4.4142999999999999...	-0.310699999999999...
24	C1orf159	-8.060000000000000...	0.16139999999999999	9.28999999999999999
25	JA715134	-0.2087	0.1124	0.3785
26	TTL10	-8.649999999999999...	0.2422	0.1138

Edit Observation Names

To label each observation, select an existing name from the pull-down lists, or create a new label by typing directly into the Observation Name field. Then click OK.

Edit Observation Names

- UCVsNormal
- 52wksVedolizumabvsBaseline
- Observation 3
- Observation 4

OK Cancel

Save Cancel Help

12. Click the **Edit Observation Names** button to rename the observations.

IPA

File Edit View Window Help

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Genes and Chemicals Diseases and Functions Pathways and Lists Datasets and Analyses

Create New... Enter gene names/symbols/IDs or chemical/drug names here Search Advanced Search

QIAGEN Land Explorer

Dataset Upload - GSE73661-UC VDX with pval.xlsx

1. Select File Format: Flexible Format

2. Contains Column Header: Yes No

3. Select Identifier Type: Please assign at least one column below as "ID", and assign the identifier type(s). Assign additional columns as ID to improve mapping coverage if desired.

4. Array platform used for experiments: Not specified/applicable Select relevant array platform as a reference set for data analysis.

5. Use the dropdown menus to specify the column names that contain identifiers and observations. For observations, select the appropriate measurement value type.

Raw Data (21563) Dataset Summary (20250) Metadata

Edit Observation Names Infer Observations

ID/Observation Name	ID	UCVsNormal	UCVsNormal	52wksVedoli...	52wksVedoli...
Measurement/Annotation	2 types selec...	Expr Log Ratio	Expr p-value	Expr Log Ratio	Expr p-value
1	geneid	UCVsNormal.Log2F...	UCVsNormal.pval	52wksVedolizumab...	52wksVedolizumab...
2	DDX11L1	-0.1067	0.2878	0.1183	0.16239999999999999
3	WASH7P	-0.1883	9.700000000000003...	0.30630000000000002	5.9999999999999995...
4	FAM138F	-7.610000000000000...	0.46889999999999998	0.24660000000000001	1.9099999999999999...
5	ORAF5	0.1474	0.53110000000000002	0.17130000000000001	0.2913
6	LOC729737	0.47889999999999999	1.6999999999999999	2.900000000000000...	0.83309999999999995
7	LOC100133331	0.47889999999999999	1.6999999999999999	2.900000000000000...	0.83309999999999995
8	LOC100132062	0.47889999999999999	1.6999999999999999	2.900000000000000...	0.83309999999999995
9	ORAF29	0.2495	0.2389	0.21809999999999999	0.18870000000000001
10	JA429831	0.1215	0.33379999999999999	0.25559999999999999	4.0000000000000002...
11	JB137814	-0.674000000000000...	1.6381E-6	0.13919999999999999	0.3422
12	M37726	-1.05509999999999999	5.7599999999999999...	0.33679999999999999	2.34000000000000001...
13	LINC00115	-0.1666	2.1000000000000001...	0.14630000000000001	0.06
14	LOC643837	0.10249999999999999	0.30209999999999998	8.509999999999999...	8.8000000000000005...
15	FAM41C	0.20979999999999999	0.25540000000000002	0.1237	7.9299999999999995...
16	SAMD11	-5.519999999999999...	0.4088	-1.750000000000000...	0.78839999999999999
17	NOC2L	0.34079999999999999	1.2575E-6	-5.580000000000000...	0.44404000000000001
18	KLHL17	0.1497	8.2000000000000007...	-7.109999999999999...	0.25679999999999997
19	PLEKHN1	0.14630000000000001	8.8000000000000005...	-5.33E-2	0.35730000000000001
20	Ctorf170	-0.164899999999999...	8.5000000000000006...	0.11650000000000001	7.0499999999999993...
21	HES4	0.12740000000000001	5.3999999999999999...	-2.63E-2	0.69310000000000005
22	ISG15	0.33200000000000002	4.5167000000000003...	-0.227000000000000...	4.5999999999999999...
23	AGRN	0.81640000000000001	4.4142999999999999...	-0.310699999999999...	1E-3
24	Ctorf159	-8.060000000000000...	0.16139999999999999	9.289999999999999...	0.13400000000000001
25	JA715134	-0.2087	0.1124	0.3785	2.5000000000000001...
26	TTL10	-8.649999999999999...	0.2422	0.1138	0.13350000000000001

13. Click the Save button to proceed.

Save Cancel Help

IPA

File Edit View Window Help

Genes and Chemicals Diseases and Functions Pathways and Lists Datasets and Analyses

Create New... Enter gene names/symbols/IDs or chemical/drug names here Search Advanced Search

QIAGEN Land Explorer

Dataset Upload - GSE73661-UC VZDZ with pval.xlsx

1. Select File Format: Flexible Format

2. Contains Column Header: Yes No

3. Select Identifier Type: Please assign at least one column below as "ID", and assign the identifier type(s). Assign additional columns as ID to improve mapping coverage if desired.

4. Array platform used for experiments: Not specified/applicable Select relevant array platform as a reference set for data analysis.

5. Use the dropdown menus to specify the column names that contain identifiers and observations. For observations, select the appropriate measurement value type.

Raw Data (21563) Dataset Summary (20250) Metadata

Edit Observation Names Infer Observations

ID/Observation Name	ID	UCvsNormal	UCvsNormal	52wksVedoli...	52wksVedoli...
Measurement/Annotation	2 types selec...	Expr Log Ratio	Expr p-value	Expr Log Ratio	Expr p-value
1	geneid	UCvsNormalLog2Fol...	UCvsNormalpval	52wksVedolizumabvs...	52wksVedolizumabvs...
2	DDX11L1	-0.1067	0.2878	0.1183	0.16239999999999999
3	WASH7P	-0.1883	9.7000000000000003...	0.306300000000000002	5.9999999999999999
4	FAM138F	-7.610000000000000...	0.46999999999999999	0.24660000000000001	1.9099999999999999
5	OR4F5	0.1474	0.53110000000000002	0.17130000000000001	0.2913
6	LOC729737	0.47889999999999999	1.6999999999999999...	2.9000000000000001...	0.8330999999999999
7	LOC100133331	0.47889999999999999	1.6999999999999999...	2.9000000000000001...	0.8330999999999999
8	LOC100132062	0.47889999999999999	1.6999999999999999...	2.9000000000000001...	0.8330999999999999
9	OR4F29	0.2495	0.2389	0.21809999999999999	0.18870000000000000
10	JA429831	0.1215	0.33379999999999999	0.25559999999999999	4.0000000000000000
11	JB137814	-0.674000000000000...	1.6381E-6	0.13919999999999999	0.3422
12	M37726	-1.0550999999999999	5.7599999999999999...	0.33679999999999999	2.3400000000000001...
13	LINC00115	-0.1666	2.1000000000000001...	0.14630000000000001	0.06
14	LOC643837	0.10249999999999999	0.30209999999999999	8.50999999999999995...	8.80000000000000005...
15	FAM41C	0.20979999999999999	0.25540000000000002	0.1237	7.9299999999999995...
16	SAMD11	-5.519999999999999...	0.4088	-1.750000000000000...	0.78839999999999999
17	NOC2L	0.34079999999999999	1.2575E-6	-5.580000000000000...	0.44040000000000001
18	KLHL17	0.1497	8.2000000000000007...	-7.109999999999999...	0.25679999999999997
19	PLEKHN1	0.14630000000000001	8.8000000000000005...	-5.33E-2	0.35730000000000001
20	Ctorf170	-0.164899999999999...	8.5000000000000006...	0.11650000000000001	7.0499999999999993...
21	HE54	0.12740000000000001	5.3999999999999999...	-2.63E-2	0.69310000000000005
22	ISG15	0.33200000000000002	4.5167000000000003...	-0.227000000000000...	4.5999999999999999...
23	AGRN	0.81640000000000001	4.4142999999999999...	-0.310699999999999...	1E-3
24	Ctorf159	-8.060000000000000...	0.16139999999999999	9.2899999999999996...	0.13400000000000001
25	JA715134	-0.2087	0.1124	0.3785	2.5000000000000001...
26	TTL10	-8.649999999999999...	0.2422	0.1138	0.13350000000000001

Warning

Your dataset does not contain any metadata. Metadata is useful when you search for datasets or subsequent analyses. Please click on the Metadata tab to add keywords that describe the data. Click OK to continue to save the dataset without metadata.

OK Cancel

14. Click the OK button to proceed.

Save Cancel Help

IPA

File Edit View Window Help

Genes and Chemicals Diseases and Functions Pathways and Lists Datasets and Analyses

Create New... Enter gene names/symbols/IDs or chemical/drug names here Search Advanced Search

Dataset Upload - GSE73661-UC VDJ with pval.xlsx

1. Select File Format: Flexible Format

2. Contains Column Header: Yes No

3. Select Identifier Type: Please assign at least one column below as "ID", and assign the identifier type(s). Assign additional columns as ID to improve mapping coverage if desired.

4. Array platform used for experiments: Not specified/applicable Select relevant array platform as a reference set for data analysis.

5. Use the dropdown menus to specify the column names that contain identifiers and observations. For observations, select the appropriate measurement value type.

Raw Data (21563) Dataset Summary (20250) Metadata Mapped (20250) Unmapped (1312)

Edit Observation Names Infer Observations

ID/Observation Name	ID	UCvsNormal	UCvsNormal	52wksVedoli...	52wksVedoli...
Measurement/Annotation	2 types selec...	Expr Log Ratio	Expr p-value	Expr Log Ratio	Expr p-value
1	geneid	UCvsNormalLog2Fol...	UCvsNormal.pval	52wksVedolizumabrs...	52wksVedolizumabrs...
2	DDX11L1	-0.1067	0.2878	0.1183	0.16239999999999999
3	WASH7P	-0.1883	9.7000000000000003...	0.306300000000000002	5.9999999999999999
4	FAM138F	-7.610000000000000...	0.46989999999999998	0.24660000000000001	1.9099999999999999
5	OR4F5	0.1474	0.53110000000000002	0.17130000000000001	0.2913
6	LOC729737	0.47889999999999999	1.6999999999999999...	2.9000000000000001...	0.83309999999999995
7	LOC100133331	0.47889999999999999	1.6999999999999999...	2.9000000000000001...	0.83309999999999995
8	LOC100132062	0.47889999999999999	1.6999999999999999...	2.9000000000000001...	0.83309999999999995
9	OR4F29	0.2495	0.2389	0.21809999999999999	0.18870000000000001
10	JA429831	0.1215	0.33379999999999999	0.25559999999999999	4.0000000000000000...
11	JB137814	-0.674000000000000...	1.6381E-6	0.13919999999999999	0.3422
12	M37726	-1.0550999999999999	5.7599999999999999...	0.33679999999999999	2.3400000000000000...
13	LINC00115	-0.1666	2.1000000000000001...	0.14630000000000001	0.06
14	LOC643837	0.10249999999999999	0.30209999999999998	0.50999999999999995	8.8000000000000000...
15	FAM41C	0.20979999999999999	0.25540000000000002	0.1237	7.8299999999999999...
16	SAMD11	-5.5199999999999999	0.4088	-1.750000000000000...	0.78839999999999999
17	NOC2L	0.34079999999999999	1.2575E-6	-5.580000000000000...	0.44040000000000001
18	KLHL17	0.1497	8.2000000000000007...	-7.109999999999999...	0.25679999999999997
19	PLEKHN1	0.14630000000000001	8.8000000000000005...	-5.33E-2	0.35730000000000001
20	C1orf170	-0.16489999999999999	8.5000000000000006...	0.11650000000000001	7.0499999999999993...
21	HES4	0.12740000000000001	5.3999999999999999...	-2.63E-2	0.69310000000000005
22	ISG15	0.33200000000000002	4.5167000000000003...	-0.227000000000000...	4.5999999999999999...
23	AGRN	0.81640000000000001	4.4142999999999999...	-0.310699999999999...	1E-3
24	C1orf159	-8.060000000000000...	0.16139999999999999	9.2899999999999996...	0.13400000000000001
25	JA715134	-0.2087	0.1124	0.3785	2.5000000000000001...
26	TTL10	-8.6499999999999999...	0.2422	0.1138	0.13350000000000001

Save Dataset

Save Dataset

Choose Project: Training Project New

Name: 20220712 - UC VDJ

Notes:

(max 1600 chars)

Save Cancel

15. Save the dataset in the correct folder.

Save Cancel Help

IPA

File Edit View Window Help

Genes and Chemicals Diseases and Functions Pathways and Lists Datasets and Analyses

Create New... Enter gene names/symbols/IDs or chemical/drug names here Search Advanced Search

Project Manager

A-Z Sort Refresh

My Projects

Shared Projects

Libraries

Selected Dataset: 20220712 - UCVDZ

Based on this dataset, which Core Analysis type would you like to run?

Expression Analysis

On which measurement type would you like to base the analysis?

Expr Log Ratio

This measurement will be used to calculate directionality (z-scores) in the analysis and will be displayed in color on pathways and networks. If you choose a non-directional measurement (e.g. p-value) then z-scores will not be calculated.

Back Next

16. Specify the desired type of analysis to apply and measurement type to base it on.
Example: For RNA seq data, select Expression Analysis.

Create New...
Search
Advanced Search

QIAGEN Land Explorer

Create Expression Analysis - [analysis : 20220712 - UC VZ]

General Settings
Networks Interaction & Caus...
Node Types All
Data Sources All
Confidence Experimentally O...
Species All
Tissues & Cell Lines All
Mutation All

Population of genes to consider for p-value calculations:
Reference Set
Relationships to consider:
Affects networks and upstream regulator analysis
☒ Direct and Indirect Relationships
☐ Direct Relationships

Optional Analyses:
☒ My Project
☒ My Pathways
☒ My Lists

Analysis Filter Summary
Consider only relationships where confidence = Experimentally Observed

17. Use the default settings (recommended) or enter your own settings.

Set Cutoffs

Dataset Column	Measurement Value Type	Range	Cutoff
UCVsNormal.Log2FoldChange	Expr Log Ratio	-5.6443 to 6.062	-1 Down 1 Up
UCVsNormal.pval	Expr p-value	0.0 to 0.9997	0.05

Recalculate 1360 analysis-ready molecules across observations

Preview Dataset 20220712 - UC VZ Observation:

Analysis-Ready (1353) Mapped IDs (20250) Unmapped IDs (1312) All IDs (21562) Metadata

Add To My Pathway Add To My List Create Dataset Customize Table

Expr Log Ratio	Expr p-value	ID	Flags	Symbol	Entrez Gene Name	Location	Type(s)	Drug(s)
↓ -1.543	4.72E-09	A1CF		A1CF	APOBEC1 complementation factor	Nucleus	other	
↑ 1.069	1.00E-04	A2M		A2M	alpha-2-macroglobulin	Extracellular Space	transporter	
↓ -1.083	2.94E-15	ABAT		ABAT	4-aminobutyrate aminotransferase	Cytoplasm	enzyme	theophylline/tretinoin/valproic acid, val...
↑ 3.988	1.82E-19	ABCA12		ABCA12	ATP binding cassette subfamily A mem...	Plasma Membrane	transporter	
↑ 1.027	3.78E-11	ABCA13		ABCA13	ATP binding cassette subfamily A mem...	Extracellular Space	transporter	
↓ -2.813	3.23E-22	ABCB1		ABCB1	ATP binding cassette subfamily B memb...	Plasma Membrane	transporter	dofequidar, encequidar, tariquidar, OC...
↓ -1.056	6.10E-11	ABCB11		ABCB11	ATP binding cassette subfamily B memb...	Plasma Membrane	transporter	

0 / 1353

Flags:
"Bold" - Focus molecules. Gene/Protein/Chemical identifiers that meet the user-defined cutoff and map to the Global Molecular Network are displayed with bold text.
"D" - Duplicates. Gene/Protein/Chemical identifiers marked with an asterisk indicate that multiple identifiers in the dataset file map to a single gene/protein in the Global Molecular Network.

Run Analysis Cancel

Create New...
Search
Advanced Search

Create Expression Analysis - [analysis : 20220712 - UC VDJ]

General Settings
Population of genes to consider for p-value calculations:
Reference Set: Ingenuity Knowledge Base (Genes Only)
Relationships to consider:
☒ Direct and Indirect Relationships
☐ Direct Relationships
Optional Analyses:
☒ My Project
☒ My Pathways
☒ My Lists

Analysis Filter Summary
Consider only relationships where confidence = Experimentally Observed

18. In the **Set Cutoffs** section, enter cutoff values that are suited to your particular dataset. For example, you might enter 0.05 as a p-val cutoff.

19. The final number of “analysis-ready” molecules that pass your cutoffs ideally does not exceed approximately 3000 and must not exceed 8000.

20. Click **Run Analysis**.

Set Cutoffs
Dataset Column: UCvsNormal.Log2FoldChange
Measurement Value Type: Expr Log Ratio
Range: -5.6443 to 6.062
Cutoff: -1 Down 1 Up
Recalculate 1360 analysis-ready molecules across observations
UCvsNormal.pval
Expr p-value: 0.0 to 0.9997
0.05

Preview Dataset 20220712 - UC VDJ Observations: UCvsNormal (1353)

Analysis-Ready (1353) Mapped IDs (20250) Unmapped IDs (1312) All IDs (21562) Metadata

Add To My Pathway Add To My List Create Dataset Customize Table

Expr Log Ratio	Expr p-value	ID	Flags	Symbol	Entrez Gene Name	Location	Type(s)	Drug(s)
-1.543	4.72E-09	A1CF		A1CF	APOBEC1 complementation factor	Nucleus	other	
1.069	1.00E-04	A2M		A2M	alpha-2-macroglobulin	Extracellular Space	transporter	
-1.083	2.94E-15	ABAT		ABAT	4-aminobutyrate aminotransferase	Cytoplasm	enzyme	theophylline/tretinoin/valproic acid, val...
3.988	1.82E-19	ABCA12		ABCA12	ATP binding cassette subfamily A mem...	Plasma Membrane	transporter	
1.027	3.78E-11	ABCA13		ABCA13	ATP binding cassette subfamily A mem...	Extracellular Space	transporter	
-2.813	3.23E-22	ABCB1		ABCB1	ATP binding cassette subfamily B memb...	Plasma Membrane	transporter	dofequidar, encequidar, tariquidar, OC...
-1.056	6.10E-11	ABCB11		ABCB11	ATP binding cassette subfamily B memb...	Plasma Membrane	transporter	

0 / 1353

Flags:
"Bold" - Focus molecules. Gene/Protein/Chemical identifiers that meet the user-defined cutoff and map to the Global Molecular Network are displayed with bold text.
"D" - Duplicates. Gene/Protein/Chemical identifiers marked with an asterisk indicate that multiple identifiers in the dataset file map to a single gene/chemical in the Global Molecular Network.

Run Analysis Cancel

Create New...

Enter gene names/symbols/IDs or chemical/drug names here
Search
Advanced Search

Create Expression Analysis - [analysis: 20220712 - UC VZ]

General Settings
Networks Interaction & Caus...
Node Types All
Data Sources All
Confidence Experimentally O...
Species All
Tissues & Cell Lines All
Mutation All

Population of genes to consider for p-value calculations:
Reference Set Ingenuity Knowledge Base (Genes Only)
Relationships to consider:
Affects networks and upstream regulator analysis
☒ Direct and Indirect Relationships
☐ Direct Relationships

Optional Analyses:
☒ My Project
☒ My Pathways
☒ My Lists

Analysis Filter Summary
Consider only relationships where confidence = Experimentally Observed

Set Cutoffs

Dataset Column Measurement Value Type Range Cutoff
UCVsNormal.Log2FoldChange Expr Log Ratio -5.6443 to 6.062 -1 Down 1 Up Recalculate
UCVsNormal.pval Expr p-value 0.0 to 0.9997 0.05

Preview Dataset 20220712 - UC VZ Observation: UCVsNormal (1353)

Analysis-Ready (1353) Mapped IDs (20250) Unmapped IDs (1312) All IDs (21562) Metadata

Add To My Pathway Add To My List Create Dataset Customize Table

Expr Log Ratio	Expr p-value	ID	Flags
-1.543	4.72E-09	A1CF	
1.069	1.00E-04	A2M	
-1.083	2.94E-15	ABAT	
3.988	1.82E-19	ABCA12	
1.027	3.78E-11	ABCA13	
-2.813	3.23E-22	ABCB1	
-1.056	6.10E-11	ABCB11	

0 / 1353
Flags:
"Bold" - Focus molecules. Gene/Protein/Chemical identifiers that meet the user-defined cutoff and map to the Global Molecular Network are displayed with bold text.
"D" - Duplicates. Gene/Protein/Chemical identifiers marked with an asterisk indicate that multiple identifiers in the dataset file map to a single gene/chemical in the Global Molecular Network.

Start Analysis

Start Analysis
Project: Training Project New
Analysis Name: 20220712 - UC VZ
Notes:
(max 1600 chars)

OK Cancel

Symbol	A1CF - ARHGAP15 (1/14)	Location	Type(s)	Drug(s)
		Nucleus	other	
		Extracellular Space	transporter	
		Cytoplasm	enzyme	theophylline/tretinoin/valproic acid...
		Plasma Membrane	transporter	
		Extracellular Space	transporter	
		Plasma Membrane	transporter	dofequidar, encequidar, tariquidar, OC...
		Plasma Membrane	transporter	

Run Analysis Cancel

21. Save the analysis in the correct folder.

Sample to Insight

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IPA

File Edit View Window Help

Genes and Chemicals Diseases and Functions Pathways and Lists Datasets and Analyses

Create New...

Search Advanced Search

Provide Feedback | Support Tim Hou Close IPA

QIAGEN Land Explorer

Project Manager

A-Z Sort Refresh

My Projects

Training Project

Dataset Files

Analyses

20220712 - UC VDJ with pval

20220519 - OVCA4

20220516 - OVCA4

20220517 - OVCA4

20220517 - UC vs Ctrl, VDJ vs Base

20220516 - HUVEC miRNA Analysis

20220513 - miRNA mRNA FC Pair

20220513 - miRNA Analysis

20220513 - Test miRNA Dataset -

Ulcerative Colitis

PalmiticAcid

AMK

VitD and Asthma

NAD in Macular Degeneration - A

PRJEB25780_STAD - Causal Netwc

PRJEB25780_STAD_w metadata - 2

PRJEB25780_STAD - Test 1

Comparison Analyses

Biomarker Filter Results

Biomarker Comparison Analyses

MicroRNA Target Filter Results

22. Dataset files and analyses will be saved in the Project Manager window.

Create New...

Genes and Chemicals

Diseases and Functions

Pathways and Lists

Datasets and Analyses

Search

Advanced Search

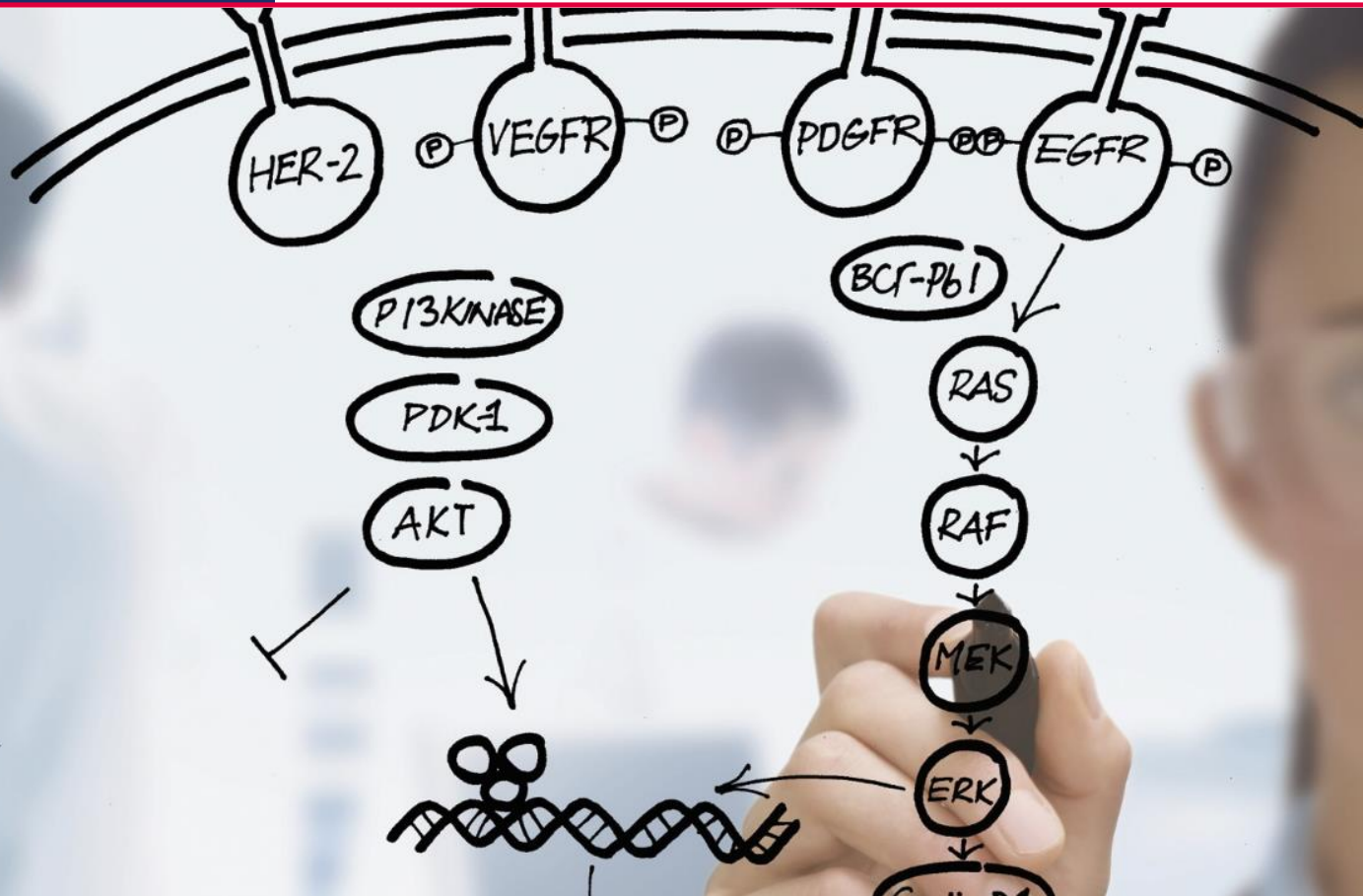
Expression Analysis - UCUsNormal

Summary Graphical Summary Canonical Pathways Upstream Analysis Diseases & Functions Regulator Effects Networks Lists My Pathways Molecules Analysis Match

Export:

23. Access Graphical Summary, Canonical Pathways, Upstream Analysis and Diseases & Functions using the tabs

Experiment Metadata			
Analysis Settings			
Top Canonical Pathways			
Name		p-value	Overlap
Granulocyte Adhesion and Diapedesis		2.08E-31	32.8 % 62/189
Agranulocyte Adhesion and Diapedesis		2.67E-26	28.0 % 60/214
Hepatic Fibrosis / Hepatic Stellate Cell Activation		2.24E-20	25.8 % 50/194
Atherosclerosis Signaling		1.44E-18	29.8 % 39/131
Osteoarthritis Pathway		6.60E-18	22.0 % 52/236
Top Upstream Regulators			
Upstream Regulators			
Name		p-value	Predicted Activation
lipopolysaccharide		5.06E-121	Activated
TNF		2.68E-101	Activated
dexamethasone		4.24E-96	Inhibited
IFNG		5.34E-83	Activated
IL1B		5.86E-80	Activated
Causal Network			
Name		p-value	Predicted Activation
lipopolysaccharide		1.69E-110	Activated
infliximab		2.39E-97	Inhibited
TAT		7.10E-96	Activated
SC-58125		9.12E-96	Inhibited
TNF		3.83E-95	Activated
Top Diseases and Bio Functions			
Diseases and Disorders			
Name		p-value range	# Molecules
Inflammatory Response		3.70E-24 - 2.13E-105	632
Organismal Injury and Abnormalities		4.68E-24 - 2.13E-105	1308
Immunological Disease		4.48E-24 - 3.01E-90	676
Inflammatory Disease		4.68E-24 - 3.01E-90	555
Cancer		4.48E-24 - 1.89E-88	1294



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