



Analysis Name: Cpd 3 vs Ctr
Analysis Creation Date: 2025-01-15
Build version: exported
Content version: 127006219 (Release Date: 2024-11-17)

Experiment Metadata

Name	Value
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Analysis Settings

Top Canonical Pathways

Name	p-value	Overlap
Mitochondrial Dysfunction	3.09e-13	7.0 % 24/345
Respiratory electron transport	4.31e-13	15.9 % 14/88
Oxidative Phosphorylation	4.87e-13	13.9 % 15/108
Sirtuin Signaling Pathway	7.25e-12	7.1 % 21/297
Granzyme A Signaling	3.61e-10	14.7 % 11/75

Top Upstream Regulators

Upstream Regulators

Name	p-value	Predicted Activation
TP53	6.18e-16	Activated
HNF4A	3.38e-14	
dexamethasone	5.51e-14	
UQCC3	1.72e-13	
lipopolysaccharide	6.55e-13	Activated

Causal Network

Name	p-value	Predicted Activation
RXRA	2.69e-19	Activated
RUNX2:CBFB:IHH gene	6.14e-18	
metribolone	7.90e-18	
RUNX2:CBFB,RUNX2:CBFB,(RUNX2:CBFB):BGLAP gene	8.37e-18	
CEBPB:CDKN2B Gene	8.39e-18	

Top Diseases and Bio Functions

Diseases and Disorders

Name	p-value range	# Molecules
Cancer	1.07e-03 - 9.84e-28	274
Organismal Injury and Abnormalities	1.07e-03 - 9.84e-28	276
Gastrointestinal Disease	1.07e-03 - 1.97e-14	248
Hereditary Disorder	9.66e-04 - 3.48e-14	124
Neurological Disease	1.00e-03 - 3.48e-14	212

Molecular and Cellular Functions

Name	p-value range	# Molecules
Lipid Metabolism	1.07e-03 - 1.26e-12	88
Small Molecule Biochemistry	1.07e-03 - 1.26e-12	103
Cellular Development	9.56e-04 - 2.43e-12	119
Cellular Growth and Proliferation	8.55e-04 - 2.43e-12	119
Molecular Transport	9.66e-04 - 1.36e-11	111

Physiological System Development and Function

Name	p-value range	# Molecules
Organismal Survival	4.68e-04 - 1.83e-13	114
Hair and Skin Development and Function	1.12e-05 - 2.50e-08	15
Connective Tissue Development and Function	6.23e-04 - 1.02e-06	44
Tissue Development	1.07e-03 - 1.02e-06	53
Embryonic Development	1.07e-03 - 1.06e-05	44

Top Tox Functions

Assays: Clinical Chemistry and Hematology

Name	p-value range	# Molecules
Increased Levels of Hematocrit	2.38e-02 - 2.38e-02	4
Increased Levels of Red Blood Cells	1.38e-01 - 1.38e-01	3
Increased Levels of Alkaline Phosphatase	2.11e-01 - 2.11e-01	2
Increased Levels of ALT	3.43e-01 - 3.43e-01	1

Cardiotoxicity

Name	p-value range	# Molecules
Cardiac Arrhythmia	6.28e-01 - 1.05e-02	11
Cardiac Inflammation	3.16e-01 - 1.05e-02	2
Congenital Heart Anomaly	4.33e-01 - 1.05e-02	9
Cardiac Enlargement	1.00e00 - 1.94e-02	18
Cardiac Proliferation	1.81e-01 - 1.99e-02	5

Hepatotoxicity

Name	p-value range	# Molecules
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Hepatocellular carcinoma	4.80e-01 - 4.66e-08	70
Liver Hyperplasia/Hyperproliferation	4.80e-01 - 4.66e-08	141
Liver Steatosis	3.35e-01 - 4.45e-05	22
Liver Inflammation/Hepatitis	5.60e-01 - 1.25e-04	19
Liver Cirrhosis	5.95e-01 - 1.07e-03	10

Nephrotoxicity

Name	p-value range	# Molecules
Renal Proliferation	1.48e-01 - 3.73e-05	13
Kidney Failure	2.63e-01 - 1.96e-04	13
Renal Damage	4.33e-01 - 6.39e-04	9
Renal Tubule Injury	2.54e-01 - 6.39e-04	6
Renal Necrosis/Cell Death	4.86e-01 - 8.36e-04	14

Top Regulator Effect Networks

ID	Regulators	Disease & Functions	Consistency Score
1	CPT1B,EDN1,FSH (complex),GPER1,IL17A,LH (complex) (+5 more)	Binding of epithelial cells (+7 more)	16.629
2	EDN1,ERK (family),IL17A,NFKB (family),RAF1,TNF (+1 more)	Binding of epithelial cells (+4 more)	9.859
3	EDN1,ERK (family),IL17A,NFKB (complex) (+2 more)	Binding of epithelial cells,Cell spreading (+2 more)	8.2
4	IFNG,IL4,TNF	Binding of bacteria	5.5
5	AGT,TNF	Cell movement of gonadal cell lines,Hemostasis	3.795

Top Networks

ID	Associated Network Functions	Score
1	Connective Tissue Disorders, Developmental Disorder, Hereditary Disorder	60
2	Lipid Metabolism, Small Molecule Biochemistry, Developmental Disorder	46
3	Hereditary Disorder, Neurological Disease, Organismal Injury and Abnormalities	38
4	Hematological Disease, Hereditary Disorder, Organismal Injury and Abnormalities	36
5	Organismal Injury and Abnormalities, Skeletal and Muscular Disorders, Respiratory System Development and Function	36

Top Tox Lists

Name	p-value	Overlap
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Mitochondrial Dysfunction	6.08e-13	6.7 % 24/356
Cholesterol Biosynthesis	1.92e-05	25.0 % 4/16
Acute Renal Failure Panel (Rat)	4.64e-05	9.7 % 6/62
NRF2-mediated Oxidative Stress Response	6.23e-04	3.7 % 10/272
Protection from Hypoxia-induced Renal Ischemic Injury (Rat)	6.44e-04	50.0 % 2/4

Top My Lists

Top My Pathways

Top ML Disease Pathways

Name	p-value	Overlap
Visceral metastasis	2.19e-06	16.2 % 6/37
Advanced extracranial solid tumor	1.38e-05	16.7 % 5/30
Neutropenia	2.25e-05	15.2 % 5/33
Follicular lymphoma	3.17e-05	10.3 % 6/58
Hepatobiliary carcinoma	5.18e-05	12.8 % 5/39

Top Analysis-Ready Molecules

Expr Log Ratio

Molecules	Expr. Value	Chart
MT2A	↑ 2.597	
KIAA1671	↑ 2.134	
SERPINB2	↑ 1.805	
SLC1A4	↑ 1.745	
PITPNM1	↑ 1.726	
GDF15	↑ 1.713	
SLC22A18	↑ 1.500	
MFSD1	↑ 1.488	
ENDOD1	↑ 1.479	
COX14	↑ 1.452	

Expr Log Ratio

Molecules	Expr. Value	Chart
CHI3L1	↓ -1.571	
SDF4	↓ -1.299	
TFF1	↓ -1.138	
FPGS	↓ -1.093	

CDC20
DOHH
ENC1
RRN3
FSCN1
KLK6

