

Analysis Name: B4 CTR vs DEX-2 - 2014-03-26 03:49 PM

Analysis Creation Date: 2014-03-26

Build version: 261899

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Analysis settings

[View](#)

Reference set: Bovine

Relationship to include: Direct and Indirect

Includes Endogenous Chemicals

Optional Analyses: My Pathways My List

Filter Summary:

Consider only relationships where
confidence = Experimentally Observed

Cutoff:

Top Networks

ID	Associated Network Functions	Score
1	Developmental Disorder, Hereditary Disorder, Immunological Disease	30
2	Cellular Movement, Cancer, Organismal Injury and Abnormalities	30
3	Cell Morphology, Cellular Assembly and Organization, Cancer	25

4	Auditory Disease, Drug Metabolism, Glutathione Depletion In Liver	25
5	Hematological System Development and Function, Hypersensitivity Response, Tissue Morphology	25

Top Diseases and Bio Functions

Diseases and Disorders

Name	p-value	# Molecules
Cancer	7.43E-06 - 9.20E-03	75
Organismal Injury and Abnormalities	6.17E-05 - 9.20E-03	52
Renal and Urological Disease	6.17E-05 - 9.20E-03	21
Cardiovascular Disease	8.37E-05 - 9.20E-03	25
Endocrine System Disorders	8.37E-05 - 9.03E-03	13

Molecular and Cellular Functions

Name	p-value	# Molecules
Cellular Development	4.57E-07 - 9.20E-03	56
Cellular Growth and Proliferation	4.57E-07 - 9.20E-03	57
Cellular Movement	2.15E-06 - 9.20E-03	38
Cell Death and Survival	1.05E-05 - 9.20E-03	48
Cell-To-Cell Signaling and Interaction	1.38E-05 - 9.20E-03	40

Physiological System Development and Function

Name	p-value	# Molecules
Embryonic Development	7.53E-07 - 9.20E-03	31
Organismal Development	7.53E-07 - 9.20E-03	44
Tissue Development	7.53E-07 - 9.20E-03	45
Hematological System Development and Function	4.26E-05 - 9.20E-03	41
Tissue Morphology	4.26E-05 - 9.20E-03	38

Top Canonical Pathways

Name	p-value	Ratio
Regulation of the Epithelial-Mesenchymal Transition Pathway	1.14E-03	6/196 (0.031)
Complement System	1.17E-03	4/35 (0.114)
Ovarian Cancer Signaling	2.34E-03	5/152 (0.033)
Human Embryonic Stem Cell Pluripotency	2.44E-03	5/162 (0.031)
Guanosine Nucleotides Degradation III	2.89E-03	2/23 (0.087)

Top Molecules

Fold Change up-regulated

Molecules	Exp. Value	Exp. Chart
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Fold Change down-regulated

Molecules	Exp. Value	Exp. Chart
LIPG	↓-14.770	
CYP1A1	↓-10.410	
FKBP5	↓-8.660	
CRISPLD2	↓-7.070	
MGP	↓-6.660	
IRX3	↓-5.820	
OSR1	↓-5.310	
MOB3B	↓-5.170	
CCL24	↓-5.140	

AGTR1

↑-4.990

Top Upstream Regulators

Upstream Regulator	p-value of overlap	Predicted Activation State
PD98059	1.69E-08	Activated
Ca2+	2.66E-07	
IFNG	2.73E-06	Inhibited
beta-estradiol	3.19E-06	
TGFB1	4.73E-06	

Top My Lists

Name	p-value	Ratio
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Top My Pathways

Name	p-value	Ratio
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Top Tox Lists

Name	p-value	Ratio
Increases Renal Damage	9.58E-04	4/69 (0.058)
Liver Proliferation	3E-03	6/210 (0.029)
Hepatic Fibrosis	4.28E-03	4/96 (0.042)
Genes associated with Chronic Allograft Nephropathy (Human)	6.11E-03	3/21 (0.143)
NF-κB Signaling	6.43E-03	5/211 (0.024)

Top Tox Functions

Assays: Clinical Chemistry and Hematology

Name	p-value	# Molecules
Increased Levels of ALT	1.04E-02 - 1.04E-02	2
Increased Levels of Creatinine	3.27E-02 - 3.27E-02	2
Increased Levels of Albumin	3.63E-02 - 3.63E-02	1
Increased Levels of LDH	9.67E-02 - 9.67E-02	1
Increased Levels of AST	1.05E-01 - 1.05E-01	1

Cardiotoxicity

Name	p-value	# Molecules
Cardiac Dysfunction	8.37E-05 - 8.37E-05	2
Cardiac Stenosis	1.71E-03 - 9.20E-03	4
Cardiac Necrosis/Cell Death	9.20E-03 - 1.84E-01	4
Cardiac Damage	1.83E-02 - 1.83E-02	1
Cardiac Degeneration	1.83E-02 - 1.83E-02	1

Hepatotoxicity

Name	p-value	# Molecules
Liver Hyperplasia/Hyperproliferation	9.58E-04 - 2.70E-01	11
Hepatocellular Carcinoma	1.42E-03 - 6.42E-02	9
Liver Proliferation	2.15E-03 - 2.83E-01	6
Liver Regeneration	1.83E-02 - 6.67E-02	2
Liver Necrosis/Cell Death	2.66E-02 - 2.48E-01	4

Nephrotoxicity

Name	p-value	# Molecules
Renal Atrophy	2.55E-04 - 1.53E-01	4
Renal Inflammation	1.36E-03 - 8.83E-02	7
Renal Nephritis	1.36E-03 - 8.83E-02	7
Renal Necrosis/Cell Death	2.56E-03 - 5.13E-01	9
Kidney Failure	8.02E-03 - 2.71E-02	4