

Analysis Name: greene - 2013-06-29 05:42 PM

Analysis Creation Date: 2013-06-29

Build version: 220217

Content version: 16542223 (Release Date: 2013-05-13)

## Analysis settings

### View

Reference set: Ingenuity Knowledge Base (Genes Only)

Relationship to include: Direct and Indirect

Includes Endogenous Chemicals

Optional Analyses: My Pathways My List

### Filter Summary:

Consider only molecules and/or relationships where

(species = Human) AND

(confidence = Experimentally Observed)

Cutoff:

## Top Networks

ID	Associated Network Functions	Score
1	Gene Expression, Cell Morphology, Tissue Development	36
2	Cell Cycle, Cancer, Reproductive System Disease	34

3	Connective Tissue Disorders, Inflammatory Disease, Skeletal and Muscular Disorders	32
4	Cancer, Cellular Movement, Organismal Injury and Abnormalities	28
5	Cell Cycle, Cancer, Cell Morphology	28

## Top Bio Functions

### Diseases and Disorders

Name	p-value	# Molecules
Cancer	1.46E-06 - 2.68E-02	255
Reproductive System Disease	1.46E-06 - 2.68E-02	68
Skeletal and Muscular Disorders	1.87E-05 - 2.68E-02	80
Gastrointestinal Disease	2.17E-04 - 2.68E-02	92
Dermatological Diseases and Conditions	1.46E-03 - 2.68E-02	57

### Molecular and Cellular Functions

Name	p-value	# Molecules
Cellular Growth and Proliferation	8.08E-09 - 2.68E-02	123
Cellular Development	1.46E-08 - 2.68E-02	93
Cell Death and Survival	6.05E-08 - 2.68E-02	112
Cell Cycle	6.15E-08 - 2.68E-02	68
Cellular Movement	4.39E-07 - 2.68E-02	80

### Physiological System Development and Function

Name	p-value	# Molecules
Cardiovascular System Development and Function	1.31E-06 - 2.68E-02	35
Organismal Development	4.16E-06 - 2.52E-02	29
Tissue Development	5.60E-05 - 2.68E-02	38
Reproductive System Development and Function	2.13E-04 - 2.68E-02	19
Tissue Morphology	6.20E-04 - 2.68E-02	12

## Top Canonical Pathways

Name	p-value	Ratio
Antigen Presentation Pathway	4.91E-06	8/40 (0.2)
Cytotoxic T Lymphocyte-mediated Apoptosis of Target Cells	3.09E-04	7/52 (0.135)
Cell Cycle: G2/M DNA Damage Checkpoint Regulation	9.48E-04	6/48 (0.125)
Allograft Rejection Signaling	1.7E-03	6/59 (0.102)
Sphingosine-1-phosphate Signaling	2.49E-03	9/115 (0.078)

## Top Molecules

### Log Ratio up-regulated

Molecules	Exp. Value	Exp. Chart
HEPH	↑11.566	
BASP1*	↑11.203	
IFI16	↑11.141	
FMN2	↑9.484	
PCTP	↑9.139	
HLA-DRB1	↑9.124	
TMEM35	↑8.608	
LDOC1	↑8.296	
KLF8	↑7.970	
SERPING1	↑7.751	

### Log Ratio down-regulated

Molecules	Exp. Value	Exp. Chart
MAGEC2	↓-11.356	
CDH4	↓-9.054	
OLFM1*	↓-6.344	

FOXI1	↓-5.158
RAB39B	↓-4.875
COL6A1*	↓-4.256
STC2	↓-3.334
LY6D	↓-3.080
DHRS3	↓-2.740
SLC4A8	↓-2.701

### Top Upstream Regulators

Upstream Regulator	p-value of overlap	Predicted Activation State
TP53	2.23E-12	Activated
ESR2	2.87E-09	
NLRC5	4.10E-08	Activated
MAPK1	2.14E-06	Inhibited
CDKN1A	3.07E-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
<a href="#">Liver Proliferation</a>	1.01E-04	16/200 (0.08)
<a href="#">Persistent Renal Ischemia-Reperfusion Injury (Mouse)</a>	4.63E-04	5/25 (0.2)
<a href="#">Acute Renal Failure Panel (Rat)</a>	7.11E-04	7/56 (0.125)
<a href="#">Cell Cycle: G2/M DNA Damage Checkpoint Regulation</a>	1.21E-03	6/45 (0.133)
<a href="#">Renal Ischemic Resistance Panel (Rat)</a>	2E-03	3/10 (0.3)

## Top Tox Functions

### Assays: Clinical Chemistry and Hematology

Name	p-value	# Molecules
Increased Levels of Alkaline Phosphatase	5.07E-01 - 5.07E-01	1

### Cardiotoxicity

Name	p-value	# Molecules
Cardiac Arrythmia	2.68E-02 - 1.00E00	2
Cardiac Damage	2.68E-02 - 2.68E-02	1
Cardiac Degeneration	2.68E-02 - 2.68E-02	1
Cardiac Stenosis	2.68E-02 - 2.68E-02	1
Congenital Heart Anomaly	2.68E-02 - 4.99E-01	2

### Hepatotoxicity

Name	p-value	# Molecules
Liver Damage	6.81E-03 - 2.59E-01	3
Liver Hyperplasia/Hyperproliferation	8.70E-03 - 4.12E-02	23
Liver Proliferation	1.78E-02 - 2.38E-01	3
Hepatocellular Carcinoma	4.12E-02 - 4.12E-02	16
Liver Inflammation/Hepatitis	4.96E-02 - 4.65E-01	5

### Nephrotoxicity

Name	p-value	# Molecules
Renal Inflammation	2.68E-02 - 4.20E-01	2
Renal Nephritis	2.68E-02 - 4.20E-01	2
Kidney Failure	5.29E-02 - 1.00E00	3
Renal Necrosis/Cell Death	6.65E-02 - 1.00E00	13

Renal Proliferation

1.10E-01 - 3.53E-01

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