

<b>Supplementary Table 3: Ingenuity Canonical Pathways: EPO Sham Contrast</b>			
<b>Canonical Pathways</b>	<b>p-value</b>	<b>Ratio</b>	<b>Genes</b>
<b>24 h post-TBI</b>			
Circadian Rhythm Signaling	9.55E-05	8.11E-02	PER3,ARNTL,CRY1
IL-17A Signaling in Fibroblasts	4.07E-03	5E-02	JUN,LCN2
IL-6 Signaling	4.17E-03	2.42E-02	IL18 (includes EG:16173),JUN,A2M
IL-12 Signaling and Production in Macrophages	4.27E-03	1.92E-02	ALOX15,IL18 (includes EG:16173),JUN
Glucocorticoid Receptor Signaling	4.90E-03	1.36E-02	JUN,DUSP1,CDKN1A,A2M
Acute Phase Response Signaling	1.05E-02	1.69E-02	IL18 (includes EG:16173),JUN,A2M
Eicosanoid Signaling	1.07E-02	2.5E-02	ALOX15,LTC4S
ATM Signaling	1.12E-02	3.28E-02	JUN,CDKN1A
RAR Activation	1.12E-02	1.59E-02	CSF2RB,JUN,DUSP1
IL-10 Signaling	1.58E-02	2.56E-02	IL18 (includes EG:16173),JUN
Crosstalk between Dendritic Cells and Natural Killer Cells	1.62E-02	2.11E-02	CSF2RB,IL18 (includes EG:16173)
IL-3 Signaling	1.66E-02	2.7E-02	CSF2RB,JUN
Leukotriene Biosynthesis	2.57E-02	4E-02	LTC4S
PPAR Signaling	2.82E-02	1.9E-02	IL18 (includes EG:16173),JUN
Guanosine Nucleotides Degradation III	2.88E-02	4.55E-02	NT5C3
Cholecystokinin/Gastrin-mediated Signaling	3.02E-02	1.89E-02	IL18 (includes EG:16173),JUN
HGF Signaling	3.09E-02	1.9E-02	JUN,CDKN1A
Urate Biosynthesis/Inosine 5'-phosphate Degradation	3.16E-02	4.35E-02	NT5C3
Adenosine Nucleotides Degradation II	3.16E-02	4E-02	NT5C3
p38 MAPK Signaling	3.89E-02	1.71E-02	IL18 (includes EG:16173),DUSP1
NAD Salvage Pathway II	4.57E-02	3.23E-02	NT5C3
GNRH Signaling	4.57E-02	1.36E-02	JUN,EGR1
GADD45 Signaling	4.79E-02	4.55E-02	CDKN1A
Aryl Hydrocarbon Receptor Signaling	5.01E-02	1.24E-02	JUN,CDKN1A
Differential Regulation of Cytokine Production in Intestinal Epithelial Cells by IL-17A and I	5.37E-02	4.35E-02	LCN2
Estrogen-mediated S-phase Entry	5.89E-02	3.57E-02	CDKN1A
CXCR4 Signaling	6.17E-02	1.2E-02	JUN,EGR1
B Cell Receptor Signaling	6.61E-02	1.21E-02	JUN,EGR1
IL-17A Signaling in Gastric Cells	6.76E-02	4E-02	JUN
PPARα/RXRα Activation	7.24E-02	1.09E-02	Cyp2c40 (includes others),JUN
TNFR2 Signaling	7.24E-02	3.03E-02	JUN
Cell Cycle Control of Chromosomal Replication	7.24E-02	3.23E-02	RPA3
Sertoli Cell-Sertoli Cell Junction Signaling	7.94E-02	1.03E-02	JUN,A2M
4-1BB Signaling in T Lymphocytes	8.13E-02	2.78E-02	JUN
Nucleotide Excision Repair Pathway	8.13E-02	2.86E-02	RPA3
Coagulation System	9.55E-02	2.63E-02	A2M
Role of Cytokines in Mediating Communication between Immune Cells	1.00E-01	1.82E-02	IL18 (includes EG:16173)
Docosahexaenoic Acid (DHA) Signaling	1.00E-01	2.04E-02	ALOX15
April Mediated Signaling	1.00E-01	2.33E-02	JUN

MIF Regulation of Innate Immunity	1.05E-01	2E-02	JUN
B Cell Activating Factor Signaling	1.05E-01	2.22E-02	JUN
Cell Cycle: G2/M DNA Damage Checkpoint Regulation	1.05E-01	2.08E-02	CDKN1A
Bupropion Degradation	1.10E-01	1.92E-02	Cyp2c40 (includes others)
MSP-RON Signaling Pathway	1.13E-01	2E-02	CSF2RB
iNOS Signaling	1.13E-01	1.89E-02	JUN
Acetone Degradation I (to Methylglyoxal)	1.13E-01	1.82E-02	Cyp2c40 (includes others)
TNFR1 Signaling	1.23E-01	1.92E-02	JUN
EGF Signaling	1.23E-01	1.92E-02	JUN
Role of CHK Proteins in Cell Cycle Checkpoint Control	1.31E-01	1.79E-02	CDKN1A
Activation of IRF by Cytosolic Pattern Recognition Receptors	1.33E-01	1.39E-02	JUN
CD27 Signaling in Lymphocytes	1.33E-01	1.75E-02	JUN
TREM1 Signaling	1.38E-01	1.41E-02	IL18 (includes EG:16173)
OX40 Signaling Pathway	1.38E-01	1.06E-02	JUN
IL-2 Signaling	1.38E-01	1.72E-02	JUN
Estrogen Biosynthesis	1.41E-01	1.47E-02	Cyp2c40 (includes others)
Cell Cycle: G1/S Checkpoint Regulation	1.41E-01	1.52E-02	CDKN1A
Thrombopoietin Signaling	1.46E-01	1.59E-02	JUN
ErbB2-ErbB3 Signaling	1.46E-01	1.67E-02	JUN
Nicotine Degradation III	1.51E-01	1.1E-02	Cyp2c40 (includes others)
Melatonin Degradation I	1.51E-01	1.2E-02	Cyp2c40 (includes others)
CD40 Signaling	1.56E-01	1.43E-02	JUN
CCR5 Signaling in Macrophages	1.58E-01	1.06E-02	JUN
Agrin Interactions at Neuromuscular Junction	1.58E-01	1.45E-02	JUN
T Helper Cell Differentiation	1.61E-01	1.39E-02	IL18 (includes EG:16173)
Antiproliferative Role of Somatostatin Receptor 2	1.61E-01	1.41E-02	CDKN1A
GM-CSF Signaling	1.61E-01	1.47E-02	CSF2RB
Communication between Innate and Adaptive Immune Cells	1.63E-01	9.17E-03	IL18 (includes EG:16173)
Nicotine Degradation II	1.68E-01	9.71E-03	Cyp2c40 (includes others)
Chemokine Signaling	1.71E-01	1.37E-02	JUN
Neurotrophin/TRK Signaling	1.71E-01	1.33E-02	JUN
Growth Hormone Signaling	1.73E-01	1.32E-02	A2M
Erythropoietin Signaling	1.75E-01	1.28E-02	JUN
JAK/Stat Signaling	1.75E-01	1.43E-02	CDKN1A
GDNF Family Ligand-Receptor Interactions	1.78E-01	1.37E-02	JUN
Cyclins and Cell Cycle Regulation	1.80E-01	1.12E-02	CDKN1A
BMP signaling pathway	1.80E-01	1.25E-02	JUN
Prolactin Signaling	1.90E-01	1.25E-02	JUN
VDR/RXR Activation	1.95E-01	1.23E-02	CDKN1A
FXR/RXR Activation	1.95E-01	9.9E-03	IL18 (includes EG:16173)
PDGF Signaling	1.97E-01	1.18E-02	JUN
Ceramide Signaling	1.99E-01	1.14E-02	JUN
Regulation of IL-2 Expression in Activated and Anergic T Lymphocytes	2.01E-01	1.12E-02	JUN

CDK5 Signaling	2.04E-01	1.06E-02	EGR1
TGF- $\beta$ Signaling	2.11E-01	1.12E-02	JUN
ErbB Signaling	2.15E-01	1.15E-02	JUN
FGF Signaling	2.15E-01	1.09E-02	FGF23
IL-1 Signaling	2.20E-01	9.43E-03	JUN
HMGB1 Signaling	2.22E-01	1.01E-02	JUN
SAPK/JNK Signaling	2.22E-01	9.8E-03	JUN
IGF-1 Signaling	2.34E-01	9.52E-03	JUN
T Cell Receptor Signaling	2.38E-01	9.17E-03	JUN
Rac Signaling	2.43E-01	8.2E-03	JUN
Androgen Signaling	2.56E-01	6.99E-03	JUN
LXR/RXR Activation	2.58E-01	7.35E-03	IL18 (includes EG:16173)
14-3-3-mediated Signaling	2.62E-01	8.55E-03	JUN
CD28 Signaling in T Helper Cells	2.62E-01	7.58E-03	JUN
Corticotropin Releasing Hormone Signaling	2.62E-01	7.35E-03	JUN
PKC $\theta$ Signaling in T Lymphocytes	2.62E-01	6.99E-03	JUN
G $\alpha$ 12/13 Signaling	2.71E-01	7.94E-03	JUN
Cdc42 Signaling	2.88E-01	5.65E-03	JUN
PI3K Signaling in B Lymphocytes	3.01E-01	7.14E-03	JUN
Relaxin Signaling	3.05E-01	6.33E-03	JUN
Tight Junction Signaling	3.37E-01	6.21E-03	JUN
Germ Cell-Sertoli Cell Junction Signaling	3.40E-01	6.1E-03	A2M
NF- $\kappa$ B Signaling	3.44E-01	5.71E-03	IL18 (includes EG:16173)
Role of NFAT in Regulation of the Immune Response	3.54E-01	5.08E-03	JUN
ILK Signaling	3.80E-01	5.21E-03	JUN
Production of Nitric Oxide and Reactive Oxygen Species in Macrophages	3.82E-01	4.76E-03	JUN
G-Protein Coupled Receptor Signaling	3.87E-01	3.8E-03	TACR1,DUSP1
NRF2-mediated Oxidative Stress Response	3.87E-01	5.21E-03	JUN
IL-8 Signaling	3.87E-01	4.9E-03	JUN
Leukocyte Extravasation Signaling	3.96E-01	5.08E-03	MMP8
Actin Cytoskeleton Signaling	4.25E-01	4.2E-03	FGF23
cAMP-mediated signaling	4.37E-01	4.52E-03	DUSP1
Signaling by Rho Family GTPases	4.51E-01	3.97E-03	JUN
<b>72 h post-TBI</b>			
Eicosanoid Signaling	1.62E-03	6.25E-02	ALOX15,PLA2G4A,PLA2G2A,HPGDS,DPEP2
Fc Epsilon RI Signaling	5.50E-03	5.13E-02	PLA2G4A,RAC2,GRAP2,FCER1G,MAP2K3,PLA2G2A
Phospholipases	8.71E-03	6.06E-02	HMOX1,PLA2G4A,PLA2G2A,PLA1A
Pyrimidine Deoxyribonucleotides De Novo Biosynthesis I	1.51E-02	5.56E-02	CMPK2,RRM2
Oncostatin M Signaling	1.51E-02	8.57E-02	TIMP3,OSMR,CHI3L1
Asparagine Biosynthesis I	1.58E-02	1.25E-01	ASNS
Cell Cycle: G2/M DNA Damage Checkpoint Regulation	2.24E-02	6.25E-02	CDC25B,GADD45A,TOP2A
p38 MAPK Signaling	2.88E-02	4.27E-02	CDC25B,PLA2G4A,RPS6KA3,MAP2K3,PLA2G2A

GADD45 Signaling	2.95E-02	9.09E-02	PCNA,GADD45A
Trehalose Degradation II (Trehalase)	3.16E-02	1.25E-01	GCK
B Cell Development	3.98E-02	6.06E-02	IL7R,PTPRC
Melatonin Degradation II	4.68E-02	8.33E-02	SMOX
Arginine Degradation I (Arginase Pathway)	4.68E-02	7.69E-02	OAT
Rapoport-Luebering Glycolytic Shunt	4.68E-02	1E-01	BPGM
NAD Biosynthesis III	4.68E-02	1E-01	NAMPT
Gluconeogenesis I	4.68E-02	4E-02	ME2,BPGM
Leukocyte Extravasation Signaling	5.75E-02	3.05E-02	ITGB2,RAC2,TIMP3,MMP8,CYBB,SELPLG
Natural Killer Cell Signaling	5.89E-02	3.45E-02	RAC2,CD244,FCER1G,SH2D1B
D-myo-inositol (1,4,5)-Trisphosphate Biosynthesis	5.89E-02	5.26E-02	PIP5K1B,PIP4K2A
Heme Degradation	6.17E-02	9.09E-02	HMOX1
Heme Biosynthesis from Uroporphyrinogen-III I	6.17E-02	9.09E-02	FECH
Tetrapyrrole Biosynthesis II	6.17E-02	7.69E-02	ALAS2
Spermine and Spermidine Degradation I	6.17E-02	7.14E-02	SMOX
Rac Signaling	6.46E-02	3.28E-02	CYBB,PIP5K1B,PIP4K2A,ANK1
Arginine Biosynthesis IV	7.76E-02	4.17E-02	OAT
Proline Biosynthesis II (from Arginine)	7.76E-02	5E-02	OAT
Tetrahydrofolate Salvage from 5,10-methenyltetrahydrofolate	7.76E-02	9.09E-02	MTHFD2
Ceramide Degradation	7.76E-02	7.14E-02	ACER2
GDP-glucose Biosynthesis	7.76E-02	5.88E-02	GCK
MIF-mediated Glucocorticoid Regulation	8.13E-02	4.76E-02	PLA2G4A,PLA2G2A
Macropinocytosis Signaling	8.51E-02	3.95E-02	MRC1 (includes EG:100286774),ITGB2,HGF
Glucose and Glucose-1-phosphate Degradation	9.12E-02	4.55E-02	GCK
Arginine Degradation VI (Arginase 2 Pathway)	9.12E-02	6.25E-02	OAT
Regulation of Actin-based Motility by Rho	1.00E-01	3.37E-02	RAC2,PIP5K1B,PIP4K2A
Coagulation System	1.02E-01	5.26E-02	F2R,F13A1
Phospholipase C Signaling	1.04E-01	2.31E-02	HMOX1,PLA2G4A,GRAP2,RPS6KA3,FCER1G,PLA2G2A
Sphingosine and Sphingosine-1-phosphate Metabolism	1.06E-01	4.76E-02	ACER2
Histidine Degradation III	1.06E-01	5.26E-02	MTHFD2
UDP-N-acetyl-D-galactosamine Biosynthesis II	1.06E-01	4.17E-02	GCK
VDR/RXR Activation	1.14E-01	3.7E-02	GADD45A,MXD1,IGFBP1
Sertoli Cell-Sertoli Cell Junction Signaling	1.15E-01	2.56E-02	EPB41,SPTB,CSDA (includes EG:56449),SPTA1,MAP2K3
Citrulline Biosynthesis	1.21E-01	3.85E-02	OAT
MIF Regulation of Innate Immunity	1.22E-01	4E-02	PLA2G4A,PLA2G2A
CTLA4 Signaling in Cytotoxic T Lymphocytes	1.24E-01	3.06E-02	GRAP2,AP1S2,FCER1G
IL-8 Signaling	1.28E-01	2.45E-02	ITGB2,HMOX1,RAC2,CXCR2,CYBB
Prostanoid Biosynthesis	1.35E-01	6.25E-02	HPGDS
Leukotriene Biosynthesis	1.35E-01	4E-02	DPEP2
Folate Transformations I	1.35E-01	3.03E-02	MTHFD2
MSP-RON Signaling Pathway	1.38E-01	4E-02	CSF2RB,ITGB2
FGF Signaling	1.46E-01	3.26E-02	HGF,FGF23,MAP2K3
Guanosine Nucleotides Degradation III	1.48E-01	4.55E-02	GDA

SAPK/JNK Signaling	1.57E-01	2.94E-02	RAC2,GADD45A,FCER1G
Fcy Receptor-mediated Phagocytosis in Macrophages and Monocytes	1.61E-01	2.94E-02	HMOX1,RAC2,FYB
3-phosphoinositide Biosynthesis	1.72E-01	2.82E-02	PIP5K1B,PIP4K2A
Lipid Antigen Presentation by CD1	1.75E-01	4.35E-02	FCER1G
Actin Cytoskeleton Signaling	1.81E-01	2.1E-02	RAC2,F2R,FGF23,PIP5K1B,PIP4K2A
iCOS-iCOSL Signaling in T Helper Cells	1.85E-01	2.44E-02	PTPRC,GRAP2,FCER1G
Choline Biosynthesis III	1.88E-01	4.55E-02	HMOX1
Phenylalanine Degradation IV (Mammalian, via Side Chain)	1.88E-01	2.56E-02	SMOX
Granzyme A Signaling	2.01E-01	5E-02	GZMA
Tryptophan Degradation X (Mammalian, via Tryptamine)	2.01E-01	3.45E-02	SMOX
Putrescine Degradation III	2.01E-01	3.33E-02	SMOX
RhoA Signaling	2.09E-01	2.63E-02	SEPT5,PIP5K1B,PIP4K2A
Signaling by Rho Family GTPases	2.26E-01	1.98E-02	SEPT5,CDH17,CYBB,PIP5K1B,PIP4K2A
Extrinsic Prothrombin Activation Pathway	2.26E-01	5E-02	F13A1
Mismatch Repair in Eukaryotes	2.26E-01	4.17E-02	PCNA
CD28 Signaling in T Helper Cells	2.30E-01	2.27E-02	PTPRC,GRAP2,FCER1G
PKC $\theta$ Signaling in T Lymphocytes	2.30E-01	2.1E-02	RAC2,GRAP2,FCER1G
Pyridoxal 5'-phosphate Salvage Pathway	2.36E-01	2.78E-02	PIM1 (includes EG:18712),MAP2K3
Aggrin Interactions at Neuromuscular Junction	2.42E-01	2.9E-02	ITGB2,RAC2
G $\alpha$ 12/13 Signaling	2.47E-01	2.38E-02	F2RL2,F2R,CDH17
Mitotic Roles of Polo-Like Kinase	2.48E-01	2.9E-02	CDC25B,PTTG1
GM-CSF Signaling	2.48E-01	2.94E-02	CSF2RB,PIM1 (includes EG:18712)
Dopamine Degradation	2.51E-01	2.7E-02	SMOX
Differential Regulation of Cytokine Production in Intestinal Epithelial Cells by IL-17A and I	2.63E-01	4.35E-02	LCN2
Pyrimidine Ribonucleotides Interconversion	2.75E-01	2.78E-02	CMPK2
NRF2-mediated Oxidative Stress Response	2.76E-01	2.08E-02	HMOX1,MAP2K3,JUNB,ENC1
IL-10 Signaling	2.83E-01	2.56E-02	HMOX1,MAP2K3
Glycolysis I	2.86E-01	2.22E-02	BPGM
Crosstalk between Dendritic Cells and Natural Killer Cells	2.89E-01	2.11E-02	CSF2RB,CD226
VEGF Family Ligand-Receptor Interactions	3.07E-01	2.38E-02	PLA2G4A,PLA2G2A
Tumoricidal Function of Hepatic Natural Killer Cells	3.09E-01	4.17E-02	SRGN
Glutathione-mediated Detoxification	3.20E-01	2.22E-02	HPGDS
Salvage Pathways of Pyrimidine Ribonucleotides	3.30E-01	1.96E-02	PIM1 (includes EG:18712),MAP2K3
Antiproliferative Role of TOB in T Cell Signaling	3.31E-01	3.85E-02	PABPC1
Role of JAK family kinases in IL-6-type Cytokine Signaling	3.31E-01	3.7E-02	OSMR
Intrinsic Prothrombin Activation Pathway	3.41E-01	2.86E-02	F13A1
Hematopoiesis from Pluripotent Stem Cells	3.41E-01	1.59E-02	FCER1G
Noradrenaline and Adrenaline Degradation	3.41E-01	1.92E-02	SMOX
TR/RXR Activation	3.42E-01	2.08E-02	UCP2,NCOA4
Complement System	3.52E-01	2.86E-02	CD55
Interferon Signaling	3.62E-01	2.78E-02	MX1
Serotonin Receptor Signaling	3.62E-01	2.17E-02	SMOX
Retinoate Biosynthesis I	3.72E-01	2.63E-02	Rdh1 (includes others)

Tight Junction Signaling	3.86E-01	1.86E-02	EPB41,F2RL2,CSDA (includes EG:56449)
Circadian Rhythm Signaling	3.93E-01	2.7E-02	PER1
Inhibition of Angiogenesis by TSP1	3.93E-01	2.56E-02	CD36
B Cell Receptor Signaling	4.07E-01	1.82E-02	PTPRC,RAC2,MAP2K3
IL-17A Signaling in Fibroblasts	4.11E-01	2.5E-02	LCN2
RhoGDI Signaling	4.33E-01	1.52E-02	CDH17,PIP5K1B,PIP4K2A
T Cell Receptor Signaling	4.38E-01	1.83E-02	PTPRC,GRAP2
Docosahexaenoic Acid (DHA) Signaling	4.40E-01	2.04E-02	ALOX15
Netrin Signaling	4.40E-01	1.75E-02	RAC2
PPAR $\alpha$ /RXR $\alpha$ Activation	4.42E-01	1.63E-02	CD36,MAP2K3,ADIPOR1
Acute Phase Response Signaling	4.54E-01	1.69E-02	HMOX1,OSMR,MAP2K3
D-myo-inositol-5-phosphate Metabolism	4.57E-01	1.92E-02	PIP4K2A
Endothelin-1 Signaling	4.62E-01	1.6E-02	HMOX1,PLA2G4A,PLA2G2A
Serotonin Degradation	4.74E-01	1.32E-02	SMOX
LXR/RXR Activation	4.85E-01	1.47E-02	CD36,S100A8
CCR3 Signaling in Eosinophils	4.95E-01	1.59E-02	PLA2G4A,PLA2G2A
Nur77 Signaling in T Lymphocytes	4.99E-01	1.59E-02	FCER1G
CNTF Signaling	5.22E-01	1.82E-02	RPS6KA3
Integrin Signaling	5.30E-01	1.45E-02	ITGB2,RAC2,PARVB
Cytotoxic T Lymphocyte-mediated Apoptosis of Target Cells	5.31E-01	1.18E-02	FCER1G
Role of CHK Proteins in Cell Cycle Checkpoint Control	5.38E-01	1.79E-02	PCNA
IL-12 Signaling and Production in Macrophages	5.40E-01	1.28E-02	ALOX15,S100A8
p70S6K Signaling	5.40E-01	1.55E-02	F2RL2,F2R
CD27 Signaling in Lymphocytes	5.46E-01	1.75E-02	MAP2K3
Calcium-induced T Lymphocyte Apoptosis	5.60E-01	1.43E-02	FCER1G
OX40 Signaling Pathway	5.60E-01	1.06E-02	FCER1G
PXR/RXR Activation	5.87E-01	1.15E-02	IGFBP1
ATM Signaling	5.87E-01	1.64E-02	GADD45A
Role of JAK1 and JAK3 in $\gamma$ c Cytokine Signaling	6.00E-01	1.49E-02	IL7R
CD40 Signaling	6.07E-01	1.43E-02	MAP2K3
ERK5 Signaling	6.07E-01	1.54E-02	RPS6KA3
CCR5 Signaling in Macrophages	6.12E-01	1.06E-02	FCER1G
T Helper Cell Differentiation	6.19E-01	1.39E-02	FCER1G
Communication between Innate and Adaptive Immune Cells	6.25E-01	9.17E-03	FCER1G
<b>7 days post-TBI</b>			
Histidine Degradation III	1.10E-03	1.05E-01	MTHFD2,AMDHD1
Pyrimidine Deoxyribonucleotides De Novo Biosynthesis I	3.39E-03	5.56E-02	CMPK2,EHD4
Phenylalanine Degradation IV (Mammalian, via Side Chain)	3.98E-03	5.13E-02	GOT1,SMOX
GADD45 Signaling	6.76E-03	9.09E-02	CDKN1A,CCND1
Asparagine Biosynthesis I	7.41E-03	1.25E-01	ASNS
Estrogen-mediated S-phase Entry	1.02E-02	7.14E-02	CDKN1A,CCND1
D-myo-inositol (1,4,5)-Trisphosphate Biosynthesis	1.45E-02	5.26E-02	PIP5K1B,PIP4K2A

Alanine Degradation III	1.48E-02	1.67E-01	GPT
Alanine Biosynthesis II	1.48E-02	1.67E-01	GPT
TR/RXR Activation	1.82E-02	3.12E-02	UCP2,CYP7A1,NCOA4
Melatonin Degradation II	2.19E-02	8.33E-02	SMOX
Rapoport-Luebering Glycolytic Shunt	2.19E-02	1E-01	BPGM
Glutamate Degradation II	2.19E-02	1E-01	GOT1
Heme Biosynthesis from Uroporphyrinogen-III I	2.88E-02	9.09E-02	FECH
Tetrapyrrole Biosynthesis II	2.88E-02	7.69E-02	ALAS2
Spermine and Spermidine Degradation I	2.88E-02	7.14E-02	SMOX
L-cysteine Degradation I	2.88E-02	9.09E-02	GOT1
Sertoli Cell-Sertoli Cell Junction Signaling	3.09E-02	2.05E-02	EPB41,SPTB,CSDA (includes EG:56449),SPTA1
Cell Cycle: G2/M DNA Damage Checkpoint Regulation	3.16E-02	4.17E-02	CDC25B,CDKN1A
Rac Signaling	3.31E-02	2.46E-02	PIP5K1B,PIP4K2A,ANK1
Tetrahydrofolate Salvage from 5,10-methenyltetrahydrofolate	3.63E-02	9.09E-02	MTHFD2
dTMP De Novo Biosynthesis	3.63E-02	6.67E-02	EHD4
LXR/RXR Activation	3.89E-02	2.21E-02	APOA4,CD36,CYP7A1
UDP-N-acetyl-D-glucosamine Biosynthesis II	4.37E-02	5.88E-02	FMO3
3-phosphoinositide Biosynthesis	4.68E-02	2.82E-02	PIP5K1B,PIP4K2A
Aspartate Degradation II	5.01E-02	7.14E-02	GOT1
Cell Cycle: G1/S Checkpoint Regulation	5.62E-02	3.03E-02	CDKN1A,CCND1
Histidine Degradation VI	5.75E-02	5E-02	AMDHD1
Eicosanoid Signaling	6.03E-02	2.5E-02	ALOX15,PLA2G2A
Aryl Hydrocarbon Receptor Signaling	6.31E-02	1.86E-02	GSTA3,CDKN1A,CCND1
Glucocorticoid Biosynthesis	6.46E-02	4.76E-02	CYP17A1
Folate Transformations I	6.46E-02	3.03E-02	MTHFD2
Guanosine Nucleotides Degradation III	7.08E-02	4.55E-02	GDA
Glycine Betaine Degradation	7.08E-02	4.35E-02	SDS
Androgen Biosynthesis	8.51E-02	3.85E-02	CYP17A1
Bile Acid Biosynthesis, Neutral Pathway	8.51E-02	1.72E-02	CYP7A1
Cyclins and Cell Cycle Regulation	8.91E-02	2.25E-02	CDKN1A,CCND1
Isoleucine Degradation I	9.12E-02	3.33E-02	SDS
Regulation of Actin-based Motility by Rho	9.33E-02	2.25E-02	PIP5K1B,PIP4K2A
Tryptophan Degradation X (Mammalian, via Tryptamine)	9.77E-02	3.45E-02	SMOX
Putrescine Degradation III	9.77E-02	3.33E-02	SMOX
Valine Degradation I	1.11E-01	2.86E-02	SDS
Dopamine Degradation	1.24E-01	2.7E-02	SMOX
Pyrimidine Ribonucleotides Interconversion	1.37E-01	2.78E-02	CMPK2
Glycolysis I	1.44E-01	2.22E-02	BPGM
Gluconeogenesis I	1.50E-01	2E-02	BPGM
HGF Signaling	1.55E-01	1.9E-02	CDKN1A,CCND1
Glutathione-mediated Detoxification	1.63E-01	2.22E-02	GSTA3
RhoA Signaling	1.65E-01	1.75E-02	PIP5K1B,PIP4K2A
Fc Epsilon RI Signaling	1.70E-01	1.71E-02	GRAP2,PLA2G2A

Androgen Signaling	1.70E-01	1.4E-02	NCOA4,CCND1
Noradrenaline and Adrenaline Degradation	1.75E-01	1.92E-02	SMOX
Fatty Acid $\beta$ -oxidation I	1.87E-01	2.22E-02	SDS
Serotonin Receptor Signaling	1.87E-01	2.17E-02	SMOX
p38 MAPK Signaling	1.88E-01	1.71E-02	CDC25B,PLA2G2A
MIF-mediated Glucocorticoid Regulation	1.99E-01	2.38E-02	PLA2G2A
IL-12 Signaling and Production in Macrophages	2.02E-01	1.28E-02	ALOX15,APOA4
Cell Cycle Regulation by BTG Family Proteins	2.05E-01	2.78E-02	CCND1
Triacylglycerol Biosynthesis	2.05E-01	2.17E-02	ELOVL6
Stearate Biosynthesis I (Animals)	2.22E-01	2E-02	ELOVL6
Docosahexaenoic Acid (DHA) Signaling	2.34E-01	2.04E-02	ALOX15
MIF Regulation of Innate Immunity	2.45E-01	2E-02	PLA2G2A
Transcriptional Regulatory Network in Embryonic Stem Cells	2.45E-01	2.5E-02	TCF7L1
D-myo-inositol-5-phosphate Metabolism	2.45E-01	1.92E-02	PIP4K2A
Xenobiotic Metabolism Signaling	2.55E-01	1.01E-02	GSTA3,FMO3,SMOX
Serotonin Degradation	2.56E-01	1.32E-02	SMOX
Tight Junction Signaling	2.75E-01	1.24E-02	EPB41,CSDA (includes EG:56449)
Role of CHK Proteins in Cell Cycle Checkpoint Control	2.99E-01	1.79E-02	CDKN1A
RhoGDI Signaling	3.05E-01	1.02E-02	PIP5K1B,PIP4K2A
Phospholipases	3.14E-01	1.52E-02	PLA2G2A
ErbB2-ErbB3 Signaling	3.30E-01	1.67E-02	CCND1
PXR/RXR Activation	3.34E-01	1.15E-02	CYP7A1
ATM Signaling	3.34E-01	1.64E-02	CDKN1A
Mitotic Roles of Polo-Like Kinase	3.59E-01	1.45E-02	CDC25B
Antiproliferative Role of Somatostatin Receptor 2	3.59E-01	1.41E-02	CDKN1A
GM-CSF Signaling	3.59E-01	1.47E-02	CCND1
Nicotine Degradation II	3.72E-01	9.71E-03	FMO3
JAK/Stat Signaling	3.86E-01	1.43E-02	CDKN1A
Dopamine Receptor Signaling	3.95E-01	1.06E-02	SMOX
Actin Cytoskeleton Signaling	4.04E-01	8.4E-03	PIP5K1B,PIP4K2A
VEGF Family Ligand-Receptor Interactions	4.05E-01	1.19E-02	PLA2G2A
VDR/RXR Activation	4.22E-01	1.23E-02	CDKN1A
FXR/RXR Activation	4.22E-01	9.9E-03	CYP7A1
CTLA4 Signaling in Cytotoxic T Lymphocytes	4.35E-01	1.02E-02	GRAP2
Phospholipase C Signaling	4.40E-01	7.69E-03	GRAP2,PLA2G2A
Signaling by Rho Family GTPases	4.45E-01	7.94E-03	PIP5K1B,PIP4K2A
Mouse Embryonic Stem Cell Pluripotency	4.83E-01	1.01E-02	TCF7L1
Protein Kinase A Signaling	4.85E-01	7.33E-03	CDC25B,ADD2,TCF7L1
iCOS-iCOSL Signaling in T Helper Cells	4.98E-01	8.13E-03	GRAP2
T Cell Receptor Signaling	4.98E-01	9.17E-03	GRAP2
Role of NANOG in Mammalian Embryonic Stem Cell Pluripotency	5.35E-01	8.77E-03	TCF7L1
14-3-3-mediated Signaling	5.37E-01	8.55E-03	SNCA
CCR3 Signaling in Eosinophils	5.37E-01	7.94E-03	PLA2G2A



CD28 Signaling in T Helper Cells	5.37E-01	7.58E-03	GRAP2
PKC $\theta$ Signaling in T Lymphocytes	5.37E-01	6.99E-03	GRAP2
Human Embryonic Stem Cell Pluripotency	5.86E-01	6.67E-03	TCF7L1
AMPK Signaling	5.93E-01	6.02E-03	PFKFB1
Synaptic Long Term Depression	6.22E-01	6.29E-03	PLA2G2A