

Progressors vs. non-progressors				
Pathway	N	NES	FDR <i>q</i>	Source
EDG1PATHWAY	22	1.80	0.074110	BioCarta
ERKPATHWAY	28	1.84	0.077616	BioCarta
HSA00670_ONE CARBON POOL BY FOLATE	15	1.75	0.084030	KEGG
HSA00563_GLYCOSYLPHOSPHATIDYLINOSITOL ANCHOR BIOSYNTHESIS	21	1.86	0.084170	KEGG
CELL MOTILITY	90	1.75	0.084275	GO
HSA04115_P53 SIGNALING PATHWAY	62	1.76	0.084678	KEGG
ATMPATHWAY	17	1.75	0.084693	BioCarta
HSA03022_BASAL TRANSCRIPTION FACTORS	30	1.74	0.085356	KEGG
HSA05216_THYROID CANCER	26	1.75	0.086987	KEGG
HSA04360_AXON GUIDANCE	122	1.74	0.087133	KEGG
HSA04530_TIGHT JUNCTION	116	1.77	0.087402	KEGG
HSA00626_NAPHTHALENE AND ANTHRACENE DEGRADATION	17	1.74	0.087777	KEGG
NUCLEAR RECEPTORS	38	1.77	0.087822	GenMAPP
RNA TRANSCRIPTION REACTOME	34	1.70	0.094451	GenMAPP
BIOPEPTIDESPATHWAY	36	1.64	0.119179	BioCarta
HSA01031_GLYCAN STRUCTURES BIOSYNTHESIS_2	56	1.64	0.119692	KEGG
HSA04910_INSULIN SIGNALING PATHWAY	124	1.62	0.120935	KEGG
SA PTEN PATHWAY	16	1.64	0.121073	SigmaAldrich
HSA00440_AMINOPHOSPHONATE METABOLISM	15	1.65	0.121642	KEGG
ATRBRCAPATHWAY	18	1.63	0.121746	BioCarta
GLUTATHIONE METABOLISM	30	1.62	0.123294	GenMAPP
NFKBPATHWAY	23	1.60	0.124794	BioCarta
ECMPATHWAY	20	1.63	0.125733	BioCarta
TIDPATHWAY	16	1.61	0.125794	BioCarta
GO ROS	27	1.61	0.125859	GO
FMLPPATHWAY	36	1.63	0.126087	BioCarta
WNT_SIGNALING	58	1.63	0.126643	GEArray
OVARIAN INFERTILITY GENES	25	1.59	0.127367	GenMAPP
HSA05214_GLIOMA	58	1.59	0.128191	KEGG
HSA04510_FOCAL ADHESION	185	1.58	0.128434	KEGG
HSA04920_ADIPOCYTOKINE SIGNALING PATHWAY	71	1.58	0.128910	KEGG
HSA01510_NEURODEGENERATIVE DISEASES	36	1.59	0.129177	KEGG
HSA05219_BLADDER CANCER	37	1.57	0.129643	KEGG
HSA00770_PANTOTHENATE AND COA BIOSYNTHESIS	15	1.57	0.130170	KEGG
HSA04662_B_CELL RECEPTOR SIGNALING PATHWAY	59	1.57	0.131478	KEGG
INTEGRIN MEDIATED CELL ADHESION KEGG	90	1.57	0.132717	GenMAPP
MRNA PROCESSING REACTOME	102	1.56	0.134787	GenMAPP
HSA00260_GLYCINE SERINE AND THREONINE METABOLISM	43	1.55	0.141282	KEGG
HSA00450_SELENOAMINO ACID METABOLISM	25	1.55	0.142997	KEGG
HSA03050_PROTEASOME	22	1.55	0.144098	KEGG
HSA04310_WNT_SIGNALING PATHWAY	134	1.54	0.144522	KEGG
ARFPATHWAY	15	1.53	0.148120	BioCarta
ST T CELL SIGNAL TRANSDUCTION	44	1.54	0.148424	STKE
HSA05020_PARKINSONS DISEASE	15	1.52	0.152607	KEGG
STATIN PATHWAY PHARMGKB	17	1.52	0.157357	GenMAPP
SIG_CHEMOTAXIS	44	1.52	0.158416	SignalingAlliance
HSA04916_MELANOGENESIS	92	1.51	0.163552	KEGG

HSA05220_CHRONIC_MYELOID_LEUKEMIA	71	1.51	0.164393	KEGG
HSA00010_GLYCOLYSIS_AND_GLUONEOGENESIS	53	1.51	0.164446	KEGG
CXCR4PATHWAY	22	1.50	0.167945	BioCarta
HSA04730_LONG_TERM_DEPRESSION	70	1.50	0.168420	KEGG
NO2IL12PATHWAY	15	1.50	0.169179	BioCarta
IL1RPATHWAY	32	1.50	0.169621	BioCarta
GLYCOSPHINGOLIPID_METABOLISM	19	1.49	0.174203	GenMAPP
G1_TO_S_CELL_CYCLE_REACTOME	65	1.49	0.174421	GenMAPP
HSA00480_GLUTATHIONE_METABOLISM	34	1.49	0.175293	KEGG
PTDINSPATHWAY	21	1.49	0.175595	BioCarta
TYPE_III_SECRETION_SYSTEM	19	1.49	0.175650	GenMAPP
HSA04370_VEGF_SIGNALING_PATHWAY	65	1.49	0.176019	KEGG
HSA04020_CALCIIUM_SIGNALING_PATHWAY	161	1.48	0.176726	KEGG
FLAGELLAR_ASSEMBLY	19	1.47	0.179115	GenMAPP
HSA04630_JAK_STAT_SIGNALING_PATHWAY	138	1.47	0.179526	KEGG
HSA00150_ANDROGEN_AND_ESTROGEN_METABOLISM	37	1.47	0.179693	KEGG
HSA04720_LONG_TERM_POTENTIATION	62	1.47	0.179707	KEGG
CELL_CYCLE_ARREST	26	1.47	0.179779	GO
RIBOSOMAL_PROTEINS	71	1.47	0.180099	GenMAPP
GLYCINE_SERINE_AND_THREONINE_METABOLISM	34	1.47	0.180134	GenMAPP
ST_ERK1_ERK2_MAPK_PATHWAY	29	1.47	0.180533	STKE
PROTEASOME	17	1.47	0.180617	GenMAPP
ATP_SYNTHESIS	19	1.48	0.180859	GenMAPP
CELL_CYCLE	71	1.46	0.181256	GO
P53HYPOXIAPATHWAY	17	1.45	0.181575	BioCarta
HSA04512_ECM_RECEPTOR_INTERACTION	83	1.45	0.181622	KEGG
PHOTOSYNTHESIS	20	1.46	0.181815	GenMAPP
CHEMICALPATHWAY	19	1.46	0.181833	BioCarta
HSA00860_PORPHYRIN_AND_CHLOROPHYLL_METABOLISM	29	1.48	0.181956	KEGG
COMPPATHWAY	15	1.46	0.182160	BioCarta
PTENPATHWAY	16	1.45	0.182665	BioCarta
HYPERTROPHY_MODEL	16	1.45	0.182746	GenMAPP
ST_FAS_SIGNALING_PATHWAY	58	1.45	0.182910	STKE
HSA00350_TYROSINE_METABOLISM	53	1.46	0.183566	KEGG
HSA00980_METABOLISM_OF_XENOBIOTICS_BY_CYTOCHROME_P450	39	1.46	0.183650	KEGG
HSA00533_KERATAN_SULFATE_BIOSYNTHESIS	15	1.44	0.190798	KEGG
SIG_REGULATION_OF_THE_ACTIN_CYTOSKELETON_BY_RHO_GTPASES	34	1.44	0.190836	SignalingAlliance
HSA04660_T_CELL_RECEPTOR_SIGNALING_PATHWAY	90	1.43	0.193678	KEGG
HSA04940_TYPE_I_DIABETES_MELLITUS	21	1.43	0.194057	KEGG
HIVNEFPATHWAY	53	1.43	0.194440	BioCarta
ST_GAQ_PATHWAY	26	1.43	0.194625	STKE
ST_GA13_PATHWAY	33	1.43	0.195504	STKE
CELL_CYCLE_KEGG	79	1.42	0.199641	GenMAPP
HSA04520_ADHERENS_JUNCTION	70	1.42	0.200074	KEGG
IGF1MTORPATHWAY	19	1.42	0.201500	BioCarta
HDACPATHWAY	28	1.42	0.203771	BioCarta
DNA_REPLICATION_REACTOME	40	1.41	0.206845	GenMAPP
ST_P38_MAPK_PATHWAY	36	1.41	0.208067	STKE
HSA05221_ACUTE_MYELOID_LEUKEMIA	50	1.40	0.216068	KEGG

CELL_GROWTH_AND_OR_MAINTENANCE	58	1.40	0.216729	GO
HSA00510_N_GLYCAN_BIOSYNTHESIS	40	1.40	0.219178	KEGG
HSA03020_RNA_POLYMERASE	19	1.40	0.219499	KEGG
SIG_PIP3_SIGNALING_IN_CARDIAC_MYOCYTES	63	1.40	0.219756	SignalingAlliance
CALCIUM_REGULATION_IN_CARDIAC_CELLS	135	1.40	0.220132	GenMAPP
EIF4PATHWAY	22	1.40	0.220705	BioCarta
HSA00052_GALACTOSE_METABOLISM	28	1.40	0.220719	KEGG
HSA04210_APOPTOSIS	75	1.39	0.221115	KEGG
HSA05120_EPITHELIAL_CELL_SIGNALING_IN_HELICOBACTER_PYLORI_INFECTION	64	1.39	0.223214	KEGG
ST_DICTYOSTELIUM_DISCOIDEUM_CAMP_CHEMOTAXIS_PATHWAY	31	1.39	0.223255	STKE
BUTANOATE_METABOLISM	26	1.39	0.223623	GenMAPP
G_PROTEIN_SIGNALING	85	1.39	0.223806	GenMAPP
HSA04930_TYPE_II_DIABETES_MELLITUS	42	1.38	0.224568	KEGG
HSA05222_SMALL_CELL_LUNG_CANCER	83	1.38	0.224993	KEGG
HSA05213_ENDOMETRIAL_CANCER	49	1.38	0.225753	KEGG
OXIDATIVE_PHOSPHORYLATION	56	1.38	0.226946	GenMAPP
HSA00790_FOLATE_BIOSYNTHESIS	37	1.38	0.227902	KEGG
MPRPATHWAY	20	1.37	0.228233	BioCarta
GALACTOSE_METABOLISM	21	1.38	0.228233	GenMAPP
APOPTOSIS_KEGG	46	1.37	0.228485	GenMAPP
ALANINE_AND_ASPARTATE_METABOLISM	18	1.36	0.232958	GenMAPP
HSA04010_MAPK_SIGNALING_PATHWAY	240	1.37	0.233813	KEGG
HSA04330_NOTCH_SIGNALING_PATHWAY	40	1.36	0.234705	KEGG
ST_B_CELL_ANTIGEN_RECEPTOR	37	1.36	0.235038	STKE
GCRPATHWAY	17	1.36	0.235589	BioCarta
GLUCONEOGENESIS	45	1.36	0.236091	GenMAPP
HSA00500_STARCH_AND_SUCROSE_METABOLISM	62	1.35	0.236200	KEGG
HSA04540_GAP_JUNCTION	81	1.35	0.236292	KEGG
HSA04742_TASTE_TRANSDUCTION	27	1.35	0.239806	KEGG
GLYCOLYSIS	45	1.35	0.241468	GenMAPP
SIG_CD40PATHWAYMAP	33	1.35	0.242235	SignalingAlliance
HSA04012_ERBB_SIGNALING_PATHWAY	81	1.34	0.245151	KEGG
BIOGENIC_AMINE_SYNTHESIS	15	1.34	0.245608	GenMAPP
ST_DIFFERENTIATION_PATHWAY_IN_PC12_CELLS	40	1.34	0.246162	STKE
CCR3PATHWAY	20	1.34	0.249484	BioCarta
IAA+ vs. IAA-				
Pathway	N	NES	FDR q	Source
HSA04620_TOLL LIKE RECEPTOR SIGNALING PATHWAY	96	2.19	0.000421	KEGG
HSA05130_PATHOGENIC_ESCHERICHIA_COLI_INFECTION_EHEC	41	2.18	0.000459	KEGG
HSA00531_GLYCOSAMINOGLYCAN_DEGRADATION	15	2.19	0.000473	KEGG
HSA05131_PATHOGENIC_ESCHERICHIA_COLI_INFECTION_EPEC	41	2.17	0.000526	KEGG
APOPTOSIS	63	2.15	0.000637	GenMAPP
HSA04110_CELL_CYCLE	106	1.99	0.003305	KEGG
HSA04520_ADHERENS_JUNCTION	70	1.95	0.004542	KEGG
CELL_CYCLE_KEGG	79	1.93	0.005582	GenMAPP
ST GRANULE CELL SURVIVAL PATHWAY	25	1.90	0.006987	STKE
HSA04612_ANTIGEN_PROCESSING_AND_PRESENTATION	42	1.90	0.007031	KEGG
NFKBPATHWAY	23	1.89	0.007321	BioCarta

TCRPATHWAY	41	1.89	0.007360	BioCarta
IL7PATHWAY	16	1.88	0.007970	BioCarta
HSA05212_PANCREATIC_CANCER	71	1.87	0.008455	KEGG
STRIATED_MUSCLE_CONTRACTION	32	1.86	0.008867	GenMAPP
COMPPATHWAY	15	1.84	0.009617	BioCarta
HSA05214_GLIOMA	58	1.84	0.009623	KEGG
ST_MYOCYTE_AD_PATHWAY	23	1.84	0.009680	STKE
FCER1PATHWAY	36	1.85	0.009781	BioCarta
PHOSPHATIDYLINOSITOL_SIGNALING_SYSTEM	83	1.83	0.010348	GenMAPP
METPATHWAY	34	1.83	0.010368	BioCarta
NTHIPATHWAY	21	1.83	0.010389	BioCarta
HSA04650_NATURAL_KILLER_CELL_MEDIATED_CYTOTOXICITY	94	1.83	0.010510	KEGG
HSA04740_OLFACTORY_TRANSDUCTION	27	1.81	0.011686	KEGG
HSA05218_MELANOMA	68	1.80	0.012261	KEGG
RELAPATHWAY	16	1.80	0.012274	BioCarta
HSA05010_ALZHEIMERS_DISEASE	26	1.80	0.012304	KEGG
CTLA4PATHWAY	16	1.79	0.012472	BioCarta
G1_TO_S_CELL_CYCLE_REACTOME	65	1.79	0.012589	GenMAPP
HSA04720_LONG_TERM_POTENTIATION	62	1.79	0.012625	KEGG
IL12PATHWAY	20	1.79	0.013132	BioCarta
SIG_CHEMOTAXIS	44	1.78	0.013546	SignalingAlliance
APOPTOSIS_GENMAPP	40	1.78	0.013818	GenMAPP
SIG_PIP3_SIGNALING_IN_B_LYMPHOCYTES	33	1.77	0.013867	SignalingAlliance
TNFR2PATHWAY	18	1.78	0.013869	BioCarta
ST_DIFFERENTIATION_PATHWAY_IN_PC12_CELLS	40	1.77	0.014002	STKE
TOLLPATHWAY	34	1.76	0.014525	BioCarta
CALCINEURIN_NF_AT_SIGNALING	86	1.76	0.014588	GEArray
CELL_CYCLE	71	1.76	0.014669	GO
ETSPATHWAY	15	1.76	0.014835	BioCarta
HSA04662_B_CELL_RECEPTOR_SIGNALING_PATHWAY	59	1.76	0.014843	KEGG
HSA04810_REGULATION_OF_ACTIN_CYTOSKELETON	193	1.76	0.015055	KEGG
STRESSPATHWAY	25	1.75	0.016324	BioCarta
HSA05215_PROSTATE_CANCER	82	1.74	0.016627	KEGG
HSA04660_T_CELL_RECEPTOR_SIGNALING_PATHWAY	90	1.74	0.017209	KEGG
NO2IL12PATHWAY	15	1.74	0.017589	BioCarta
HSA00534_HEPARAN_SULFATE_BIOSYNTHESIS	18	1.73	0.017594	KEGG
HSA04210_APOPTOSIS	75	1.73	0.017632	KEGG
CALCINEURINPATHWAY	18	1.73	0.018253	BioCarta
ST_ADRENERGIC	31	1.73	0.018404	STKE
ST_INTEGRIN_SIGNALING_PATHWAY	78	1.73	0.018767	STKE
CELL_CYCLE_CHECKPOINT	22	1.72	0.018896	GO
GLEEVECPATHWAY	21	1.72	0.018938	BioCarta
MEF2DPATHWAY	17	1.72	0.019384	BioCarta
HSA04120_UBIQUITIN_MEDIATED_PROTEOLYSIS	36	1.72	0.019515	KEGG
ST_FAS_SIGNALING_PATHWAY	58	1.71	0.019905	STKE
HSA01032_GLYCAN_STRUCTURES_DEGRADATION	27	1.71	0.020303	KEGG
PROTEASOME	17	1.70	0.020714	GenMAPP
SIG_CD40PATHWAYMAP	33	1.70	0.021521	SignalingAlliance
HIVNEFPATHWAY	53	1.70	0.021941	BioCarta

CCR5PATHWAY	17	1.69	0.022924	BioCarta
PDGFPATHWAY	25	1.69	0.022977	BioCarta
TNFR1PATHWAY	27	1.68	0.024966	BioCarta
HSA05220_CHRONIC_MYELOID_LEUKEMIA	71	1.68	0.025430	KEGG
HSA05210_COLORECTAL_CANCER	81	1.68	0.025436	KEGG
BREAST_CANCER_ESTROGEN_SIGNALING	83	1.67	0.026681	GEArray
G_PROTEIN_SIGNALING	85	1.66	0.028286	GenMAPP
HSA04012_ERBB_SIGNALING_PATHWAY	81	1.65	0.029177	KEGG
ST_GA13_PATHWAY	33	1.65	0.029604	STKE
SIG_BCR_SIGNALING_PATHWAY	46	1.65	0.029616	SignalingAlliance
APOPTOSIS_KEGG	46	1.64	0.031388	GenMAPP
PORPHYRIN_AND_CHLOROPHYLL_METABOLISM	16	1.63	0.033081	GenMAPP
SMOOTH_MUSCLE_CONTRACTION	137	1.63	0.033227	GenMAPP
CARM_ERPATHWAY	24	1.62	0.035501	BioCarta
PROSTAGLANDIN_SYNTHESIS_REGULATION	28	1.62	0.036192	GenMAPP
CELLCYCLEPATHWAY	22	1.61	0.037349	BioCarta
HSA04510_FOCAL_ADHESION	185	1.61	0.037914	KEGG
ST_JNK_MAPK_PATHWAY	38	1.61	0.038027	STKE
DEATHPATHWAY	30	1.61	0.038606	BioCarta
ST_TUMOR_NECROSIS_FACTOR_PATHWAY	29	1.60	0.040363	STKE
HSA04540_GAP_JUNCTION	81	1.60	0.040372	KEGG
EGFPATHWAY	25	1.59	0.041361	BioCarta
KERATINOCYTEPATHWAY	42	1.59	0.041443	BioCarta
INTEGRIN_MEDIATED_CELL_ADHESION_KEGG	90	1.59	0.044131	GenMAPP
PGC1APATHWAY	22	1.58	0.044400	BioCarta
TIDPATHWAY	16	1.58	0.044692	BioCarta
HSA05216_THYROID_CANCER	26	1.58	0.045415	KEGG
HSA05213_ENDOMETRIAL_CANCER	49	1.58	0.045544	KEGG
HSA04010_MAPK_SIGNALING_PATHWAY	240	1.57	0.047805	KEGG
CELL_MOTILITY	90	1.57	0.048928	GO
CELL_ADHESION_RECEPTOR_ACTIVITY	32	1.57	0.049426	GO
HSA04610_COMPLEMENT_AND_COAGULATION_CASCADES	62	1.56	0.050775	KEGG
CELL_PROLIFERATION	187	1.56	0.050859	GO
NKCELLSPATHWAY	18	1.56	0.051679	BioCarta
GPCRPATHWAY	32	1.55	0.053067	BioCarta
DNA_REPLICATION_REACTOME	40	1.55	0.054461	GenMAPP
RNA_TRANSCRIPTION_REACTOME	34	1.55	0.055224	GenMAPP
HSA04940_TYPE_I_DIABETES_MELLITUS	21	1.55	0.055264	KEGG
HSA05223_NON_SMALL_CELL_LUNG_CANCER	50	1.54	0.057073	KEGG
CELL_ADHESION	166	1.54	0.057613	GO
HSA05221_ACUTE_MYELOID_LEUKEMIA	50	1.54	0.057720	KEGG
HSA04060_CYTOKINE_CYTOKINE_RECEPTOR_INTERACTION	218	1.53	0.058440	KEGG
HSA05222_SMALL_CELL_LUNG_CANCER	83	1.53	0.058574	KEGG
CELL_SURFACE_RECEPTOR_LINKED_SIGNAL_TRANSDUCTION	114	1.53	0.058670	GO
HSA04070_PHOSPHATIDYLINOSITOL_SIGNALING_SYSTEM	72	1.53	0.059507	KEGG
RAC1PATHWAY	22	1.53	0.060479	BioCarta
ST_G_ALPHA_I_PATHWAY	34	1.53	0.061064	STKE
CASPASEPATHWAY	21	1.52	0.062223	BioCarta
HSA05211_RENAL_CELL_CARCINOMA	67	1.52	0.063556	KEGG

BCRPATHWAY	32	1.51	0.063852	BioCarta
NOS1PATHWAY	20	1.51	0.065363	BioCarta
HSA04360_AXON_GUIDANCE	122	1.51	0.066139	KEGG
ARFPATHWAY	15	1.51	0.066276	BioCarta
CREBPATHWAY	24	1.50	0.070039	BioCarta
FASPATHWAY	26	1.49	0.071560	BioCarta
CALCIUM_REGULATION_IN_CARDIAC_CELLS	135	1.49	0.072299	GenMAPP
ST_WNT_CA2_CYCLIC_GMP_PATHWAY	18	1.49	0.072413	STKE
PPARAPATHWAY	46	1.49	0.072416	BioCarta
GPCRS_CLASS_B_SECRETIN_LIKE	19	1.49	0.074460	GO
ATP_SYNTHESIS	19	-1.87	0.074862	GenMAPP
HSA04630_JAK_STAT_SIGNALING_PATHWAY	138	1.48	0.076373	KEGG
WNTPATHWAY	24	1.48	0.077094	BioCarta
HSA00670_ONE_CARBON_POOL_BY_FOLATE	15	1.48	0.078274	KEGG
GSK3PATHWAY	26	1.47	0.080564	BioCarta
MAPKPATHWAY	83	1.47	0.080932	BioCarta
HSA04350_TGF_BETA_SIGNALING_PATHWAY	84	1.47	0.081949	KEGG
MITOCHONDRIAPATHWAY	19	1.47	0.082266	BioCarta
GPCRDB_CLASS_B_SECRETIN_LIKE	19	1.47	0.082799	GenMAPP
HSA04514_CELL_ADHESION_MOLECULES	105	1.46	0.086727	KEGG
GPCRDB_OTHER	48	1.45	0.089394	GenMAPP
HSA00240_PYRIMIDINE_METABOLISM	82	1.45	0.090033	KEGG
HSA04310_WNT_SIGNALING_PATHWAY	134	1.44	0.091992	KEGG
ST_GAQ_PATHWAY	26	1.44	0.092143	STKE
PROTEASOMEPATHWAY	20	1.43	0.096886	BioCarta
TH1TH2PATHWAY	15	1.43	0.099300	BioCarta
HSA02010_ABC_TRANSPORTERS_GENERAL	41	1.43	0.099746	KEGG
TPOPATHWAY	20	1.43	0.100830	BioCarta
FLAGELLAR_ASSEMBLY	19	-1.88	0.101446	GenMAPP
HSA04670_LEUKOCYTE_TRANSENDOTHELIAL_MIGRATION	106	1.42	0.105064	KEGG
IL1RPATHWAY	32	1.41	0.106800	BioCarta
GLYCOLYSIS	45	1.41	0.106931	GenMAPP
HSA00271_METHIONINE_METABOLISM	16	1.41	0.110609	KEGG
MRNA_PROCESSING_REACTOME	102	1.40	0.112058	GenMAPP
GLUCONEOGENESIS	45	1.40	0.115109	GenMAPP
ERK5PATHWAY	15	1.40	0.116612	BioCarta
ST_T_CELL_SIGNAL_TRANSDUCTION	44	1.39	0.119521	STKE
HSA04916_MELANOGENESIS	92	1.39	0.120793	KEGG
HSA00010_GLYCOLYSIS_AND_GLUONEOGENESIS	53	1.38	0.126037	KEGG
HSA04340_HEDGEHOG_SIGNALING_PATHWAY	54	1.38	0.127368	KEGG
FRUCTOSE_AND_MANNOSIDE_METABOLISM	23	1.38	0.127821	GenMAPP
HSA04930_TYPE_II_DIABETES_MELLITUS	42	1.37	0.130075	KEGG
HSA00230_PURINE_METABOLISM	135	1.37	0.131206	KEGG
HSA04664_FC_EPSILON_RI_SIGNALING_PATHWAY	73	1.37	0.132798	KEGG
CSKPATHWAY	18	1.37	0.132898	BioCarta
AMIPATHWAY	18	1.37	0.133067	BioCarta
HSA05219_BLADDER_CANCER	37	1.36	0.135124	KEGG
VIPPATHWAY	25	1.36	0.135369	BioCarta
GLYCEROLIPID_METABOLISM	37	1.36	0.135649	GenMAPP

CARDIACEGFPATHWAY	15	1.36	0.136884	BioCarta
WNT_SIGNALING	58	1.36	0.136966	GEArray
PHOTOSYNTHESIS	20	-1.76	0.137493	GenMAPP
HSA01510_NEURODEGENERATIVE_DISEASES	36	1.36	0.137917	KEGG
HSA05040_HUNTINGTONS_DISEASE	28	1.35	0.141470	KEGG
TYPE_III_SECRETION_SYSTEM	19	-1.92	0.142051	GenMAPP
INTEGRINPATHWAY	34	1.34	0.148508	BioCarta
SA_B_CELL_RECEPTOR_COMPLEXES	23	1.34	0.151296	SigmaAldrich
CARBON_FIXATION	18	1.34	0.152949	GenMAPP
ACTINYPATHWAY	18	1.33	0.155077	BioCarta
NKTPATHWAY	27	1.33	0.156727	BioCarta
HSA00640_PROANOATE_METABOLISM	28	1.32	0.163094	KEGG
HCMVPATHWAY	16	1.32	0.163135	BioCarta
ST_ERK1_ERK2_MAPK_PATHWAY	29	1.32	0.168800	STKE
HSA04640_HEMATOPOIETIC_CELL_LINEAGE	65	1.31	0.171279	KEGG
HSA04614_RENIN_ANGIOTENSIN_SYSTEM	15	1.31	0.171973	KEGG
ATRBRCAPATHWAY	18	1.31	0.172140	BioCarta
HSA03050_PROTEASOME	22	1.31	0.172256	KEGG
IL2RBPATHWAY	35	1.31	0.175758	BioCarta
P53PATHWAY	15	1.30	0.178494	BioCarta
HSA00562_INOSITOL_PHOSPHATE_METABOLISM	48	1.30	0.182415	KEGG
ST_B_CELL_ANTIGEN_RECEPTOR	37	1.30	0.183784	STKE
HSA05110_CHOLERA_INFECTION	36	1.30	0.185588	KEGG
NGFPATHWAY	17	1.29	0.194353	BioCarta
CELL_CYCLE_REGULATOR	21	1.28	0.195612	GO
HSA04115_P53_SIGNALING_PATHWAY	62	1.28	0.197523	KEGG
HSA04912_GNRH_SIGNALING_PATHWAY	90	1.28	0.197771	KEGG
HYPERTROPHY_MODEL	16	1.28	0.198289	GenMAPP
P38MAPKPATHWAY	37	1.28	0.199303	BioCarta
HSA04020_CALCIIUM_SIGNALING_PATHWAY	161	1.28	0.199756	KEGG
HSA00710_CARBON_FIXATION	20	1.28	0.200703	KEGG
PYRIMIDINE_METABOLISM	54	1.27	0.202976	GenMAPP
HSA00860_PORPHYRIN_AND_CHLOROPHYLL_METABOLISM	29	1.27	0.203787	KEGG
ANDROGEN_AND_ESTROGEN_METABOLISM	16	1.27	0.208541	GenMAPP
TOB1PATHWAY	16	1.26	0.214554	BioCarta
MCALPAINPATHWAY	22	1.24	0.234733	BioCarta
NO1PATHWAY	27	1.24	0.236059	BioCarta
INOSITOL_PHOSPHATE_METABOLISM	23	1.24	0.238345	GenMAPP
CELL_CYCLE_ARREST	26	1.24	0.238678	GO
VEGFPATHWAY	23	1.23	0.243169	BioCarta
INTRINSICPATHWAY	22	1.23	0.243817	BioCarta
AMINOACYL_TRNA_BIOSYNTHESIS	22	1.23	0.245737	GenMAPP
HDACPATHWAY	28	1.23	0.246262	BioCarta
IAA+ non-progressors vs. other				
Pathway	N	NES	FDR q	Source
CALCINEURINPATHWAY	18	2.08	0.001399	BioCarta
FCER1PATHWAY	36	2.07	0.001627	BioCarta
HSA05130_PATHOGENIC_ESCHERICHIA_COLI_INFECTION_EHEC	41	2.02	0.001986	KEGG

GLEEECPATHWAY	21	2.00	0.002548	BioCarta
PDGFPATHWAY	25	1.99	0.002824	BioCarta
TCRPATHWAY	41	1.98	0.002959	BioCarta
HSA05131_PATHOGENIC_ESCHERICHIA_COLI_INFECTION_EPEC	41	1.98	0.003019	KEGG
HSA00020_CITRATE_CYCLE	25	1.95	0.003960	KEGG
ST GRANULE CELL SURVIVAL PATHWAY	25	1.94	0.004022	STKE
EGFPATHWAY	25	1.93	0.004418	BioCarta
ST_DIFFERENTIATION_PATHWAY_IN_PC12_CELLS	40	1.93	0.004522	STKE
CITRATE_CYCLE_TCA_CYCLE	17	1.90	0.006488	GenMAPP
HSA04110_CELL_CYCLE	106	1.86	0.008299	KEGG
TOLLPATHWAY	34	1.87	0.008355	BioCarta
SIG_CD40PATHWAYMAP	33	1.85	0.008700	SignalingAlliance
PHOTOSYNTHESIS	20	-2.03	0.011036	GenMAPP
NOS1PATHWAY	20	1.83	0.011146	BioCarta
HSA04520_ADHERENS_JUNCTION	70	1.83	0.011832	KEGG
FLAGELLAR_ASSEMBLY	19	-2.04	0.013336	GenMAPP
GPCRPATHWAY	32	1.81	0.013688	BioCarta
NTHIPATHWAY	21	1.81	0.013693	BioCarta
SIG_CHEMOTAXIS	44	1.81	0.013695	SignalingAlliance
PROSTAGLANDIN_SYNTHESIS_REGULATION	28	1.81	0.013811	GenMAPP
BCRPATHWAY	32	1.79	0.015370	BioCarta
APOPTOSIS_GENMAPP	40	1.78	0.016681	GenMAPP
HSA04120_UBIQUITIN_MEDIATED_PROTEOLYSIS	36	1.78	0.016717	KEGG
TYPE_III_SECRETION_SYSTEM	19	-2.05	0.017246	GenMAPP
NFKBPATHWAY	23	1.77	0.018211	BioCarta
RELAPATHWAY	16	1.76	0.019065	BioCarta
HSA00534_HEPARAN_SULFATE_BIOSYNTHESIS	18	1.76	0.019290	KEGG
HSA04660_T_CELL_RECEPTOR_SIGNALING_PATHWAY	90	1.75	0.020793	KEGG
APOPTOSIS	63	1.75	0.020804	GenMAPP
HSA05210_COLORECTAL_CANCER	81	1.74	0.021347	KEGG
HSA00640_PROPANOATE_METABOLISM	28	1.74	0.021955	KEGG
HSA00252_ALANINE_AND_ASPARTATE_METABOLISM	30	1.74	0.022017	KEGG
HSA04630_JAK_STAT_SIGNALING_PATHWAY	138	1.72	0.024152	KEGG
KREBS_TCA_CYCLE	28	1.71	0.026436	GenMAPP
HSA04012_ERBB_SIGNALING_PATHWAY	81	1.71	0.026836	KEGG
HSA04210_APOPTOSIS	75	1.71	0.026955	KEGG
G1_TO_S_CELL_CYCLE_REACTOME	65	1.70	0.028099	GenMAPP
TPOPATHWAY	20	1.70	0.028388	BioCarta
INTRINSICPATHWAY	22	1.70	0.028504	BioCarta
PHOSPHATIDYLINOSITOL_SIGNALING_SYSTEM	83	1.70	0.028800	GenMAPP
HSA04510_FOCAL_ADHESION	185	1.69	0.029854	KEGG
ATP_SYNTHESIS	19	-2.07	0.030378	GenMAPP
ST_INTEGRIN_SIGNALING_PATHWAY	78	1.69	0.030702	STKE
HIVNEFPATHWAY	53	1.68	0.032276	BioCarta
STRIATED_MUSCLE_CONTRACTION	32	1.67	0.033759	GenMAPP
HSA04310_WNT_SIGNALING_PATHWAY	134	1.66	0.034390	KEGG
HSA04662_B_CELL_RECEPTOR_SIGNALING_PATHWAY	59	1.66	0.034570	KEGG
AMINOACYL_TRNA_BIOSYNTHESIS	22	1.66	0.034628	GenMAPP
HSA00120_BILE_ACID_BIOSYNTHESIS	30	1.66	0.034710	KEGG

HSA04350_TGF_BETA_SIGNALING_PATHWAY	84	1.66	0.034884	KEGG
HSA04130_SNARE_INTERACTIONS_IN_VESICULAR_TRANSPORT	30	1.66	0.034999	KEGG
HSA00710_CARBON_FIXATION	20	1.66	0.035067	KEGG
HSA05213_ENDOMETRIAL_CANCER	49	1.65	0.035226	KEGG
SA_B_CELL_RECEPTOR_COMPLEXES	23	1.65	0.035257	SigmaAldrich
IGF1PATHWAY	19	1.65	0.035588	BioCarta
CELL_CYCLE_KEGG	79	1.65	0.036747	GenMAPP
ST_WNT_CA2_CYCLIC_GMP_PATHWAY	18	1.64	0.036952	STKE
TNFR2PATHWAY	18	1.65	0.036967	BioCarta
VIPPATHWAY	25	1.64	0.037857	BioCarta
HSA05010_ALZHEIMERS_DISEASE	26	1.64	0.038316	KEGG
MRNA_PROCESSING_REACTOME	102	1.63	0.040083	GenMAPP
ST_ADRENERGIC	31	1.63	0.040472	STKE
CTLA4PATHWAY	16	1.62	0.043158	BioCarta
PGC1APATHWAY	22	1.62	0.044427	BioCarta
MEF2DPATHWAY	17	1.62	0.044693	BioCarta
HSA04720_LONG_TERM_POTENTIATION	62	1.61	0.045193	KEGG
ST_JNK_MAPK_PATHWAY	38	1.61	0.045456	STKE
RAC1PATHWAY	22	1.61	0.045606	BioCarta
HSA05214_GLIOMA	58	1.60	0.046556	KEGG
CCR5PATHWAY	17	1.60	0.047589	BioCarta
ST_INTERLEUKIN_4_PATHWAY	23	1.60	0.047792	STKE
INSULINPATHWAY	19	1.60	0.048562	BioCarta
CELL_CYCLE_CHECKPOINT	22	1.60	0.048825	GO
KERATINOCYTEPATHWAY	42	1.59	0.049587	BioCarta
HSA04620_TOLL LIKE RECEPTOR SIGNALING PATHWAY	96	1.59	0.050898	KEGG
HSA04140_REGULATION_OF_AUTOPHAGY	23	1.58	0.054573	KEGG
NFATPATHWAY	49	1.56	0.057455	BioCarta
IL7PATHWAY	16	1.56	0.058066	BioCarta
PPARAPATHWAY	46	1.56	0.058705	BioCarta
ANDROGEN_AND_ESTROGEN_METABOLISM	16	1.55	0.060472	GenMAPP
TIDPATHWAY	16	1.55	0.061144	BioCarta
IL12PATHWAY	20	1.55	0.061201	BioCarta
HSA05222_SMALL_CELL_LUNG_CANCER	83	1.55	0.061274	KEGG
CARBON_FIXATION	18	1.55	0.061403	GenMAPP
PTENPATHWAY	16	1.54	0.062341	BioCarta
GLUTAMATE_METABOLISM	22	1.54	0.062430	GenMAPP
SIG_PIP3_SIGNALING_IN_B_LYMPHOCYTES	33	1.54	0.062968	SignalingAlliance
HSA05212_PANCREATIC_CANCER	71	1.54	0.064775	KEGG
HSA00310_LYSINE_DEGRADATION	45	1.54	0.065005	KEGG
NGFPATHWAY	17	1.54	0.065090	BioCarta
DEATHPATHWAY	30	1.53	0.067115	BioCarta
METPATHWAY	34	1.53	0.067179	BioCarta
HSA05215_PROSTATE_CANCER	82	1.53	0.067435	KEGG
HSA04530_TIGHT_JUNCTION	116	1.53	0.067886	KEGG
HSA04060_CYTOKINE_CYTOKINE_RECEPTOR_INTERACTION	218	1.53	0.067940	KEGG
CELL_PROLIFERATION	187	1.52	0.069380	GO
COMPPATHWAY	15	1.52	0.069433	BioCarta
HSA04810_REGULATION_OF_ACTIN_CYTOSKELETON	193	1.52	0.070801	KEGG

STRESSPATHWAY	25	1.52	0.070899	BioCarta
ETSPATHWAY	15	1.52	0.070923	BioCarta
PROPANOATE_METABOLISM	28	1.52	0.071099	GenMAPP
HSA05223_NON_SMALL_CELL_LUNG_CANCER	50	1.51	0.071816	KEGG
HSA04610_COMPLEMENT_AND_COAGULATION_CASCADES	62	1.51	0.071873	KEGG
RNA_TRANSCRIPTION_REACTOME	34	1.51	0.071905	GenMAPP
CELL_MOTILITY	90	1.51	0.072594	GO
APOPTOSIS_KEGG	46	1.51	0.073164	GenMAPP
HSA04740_OLFACTORY_TRANSDUCTION	27	1.50	0.074772	KEGG
HSA05220_CHRONIC_MYELOID_LEUKEMIA	71	1.50	0.076683	KEGG
HSA03010_RIBOSOME	55	1.50	0.077033	KEGG
ALKPATHWAY	34	1.49	0.079445	BioCarta
NO2IL12PATHWAY	15	1.49	0.081064	BioCarta
FASPATHWAY	26	1.49	0.081213	BioCarta
NKCELLSPATHWAY	18	1.48	0.082145	BioCarta
CALCINEURIN_NF_AT_SIGNALING	86	1.47	0.086208	GEArray
HSA00251_GLUTAMATE_METABOLISM	27	1.47	0.087411	KEGG
CELL_ADHESION	166	1.47	0.088433	GO
MAPKPATHWAY	83	1.47	0.088769	BioCarta
41BBPATHWAY	18	1.46	0.092719	BioCarta
HSA00531_GLYCOSAMINOGLYCAN_DEGRADATION	15	1.45	0.094917	KEGG
CALCIUM_REGULATION_IN_CARDIAC_CELLS	135	1.44	0.098605	GenMAPP
ST_G_ALPHA_I_PATHWAY	34	1.44	0.101339	STKE
NO1PATHWAY	27	1.43	0.102958	BioCarta
CELL_CYCLE_ARREST	26	1.43	0.103098	GO
HSA04540_GAP_JUNCTION	81	1.43	0.104423	KEGG
GPCRDB_OTHER	48	1.43	0.105298	GenMAPP
SA_PTEN_PATHWAY	16	1.43	0.105385	SigmaAldrich
CARDIACEGFPATHWAY	15	1.42	0.107971	BioCarta
HSA05211_RENAL_CELL_CARCINOMA	67	1.42	0.110268	KEGG
HSA04010_MAPK_SIGNALING_PATHWAY	240	1.42	0.111468	KEGG
HSA05216_THYROID_CANCER	26	1.41	0.113080	KEGG
HSA04650_NATURAL_KILLER_CELL_MEDIATED_CYTOTOXICITY	94	1.41	0.113838	KEGG
CELLCYCLEPATHWAY	22	1.41	0.113903	BioCarta
BLOOD_CLOTTING_CASCADE	19	1.40	0.116970	GenMAPP
HSA04514_CELL_ADHESION_MOLECULES	105	1.40	0.118481	KEGG
BREAST_CANCER_ESTROGEN_SIGNALING	83	1.40	0.120969	GEArray
HSA01430_CELL_COMMUNICATION	119	1.40	0.121304	KEGG
HSA00240_PYRIMIDINE_METABOLISM	82	1.40	0.121387	KEGG
HSA00330_ARGININE_AND_PROLINE_METABOLISM	29	1.40	0.122970	KEGG
IL1RPATHWAY	32	1.40	0.123115	BioCarta
CELL_CYCLE_REGULATOR	21	1.39	0.126092	GO
HSA00230_PURINE_METABOLISM	135	1.38	0.127991	KEGG
HSA01510_NEURODEGENERATIVE_DISEASES	36	1.38	0.129151	KEGG
SIG_BCR_SIGNALING_PATHWAY	46	1.38	0.132890	SignalingAlliance
HDACPATHWAY	28	1.38	0.133045	BioCarta
CELL_ADHESION_RECEPTOR_ACTIVITY	32	1.38	0.133689	GO
CELL_CYCLE	71	1.37	0.135461	GO
HSA04115_P53_SIGNALING_PATHWAY	62	1.37	0.137942	KEGG

ALANINE AND ASPARTATE METABOLISM	18	1.37	0.138013	GenMAPP
SA_TRKA_RECEPTOR	15	1.37	0.138621	SigmaAldrich
EIF4PATHWAY	22	1.37	0.140207	BioCarta
INTEGRIN_MEDIATED_CELL_ADHESION_KEGG	90	1.36	0.142898	GenMAPP
AT1RPATHWAY	30	1.36	0.147583	BioCarta
HSA04670_LEUKOCYTE_TRANSENDOTHELIAL_MIGRATION	106	1.36	0.147660	KEGG
ARFPATHWAY	15	1.36	0.148524	BioCarta
ST_MYOCYTE_AD_PATHWAY	23	1.36	0.148737	STKE
ST_GA13_PATHWAY	33	1.35	0.149304	STKE
HSA05221_ACUTE_MYELOID_LEUKEMIA	50	1.35	0.149966	KEGG
HSA00280_VALINE_LEUCINE_AND_ISOLEUCINE_DEGRADATION	40	1.35	0.153060	KEGG
G_PROTEIN_SIGNALING	85	1.35	0.153179	GenMAPP
HSA00051_FRUCTOSE_AND_MANNOSE_METABOLISM	37	1.35	0.153322	KEGG
TNFR1PATHWAY	27	1.34	0.154982	BioCarta
WNT_SIGNALING	58	1.34	0.155343	GEArray
HSA04916_MELANOGENESIS	92	1.34	0.155946	KEGG
VEGFPATHWAY	23	1.34	0.156158	BioCarta
CELL_SURFACE_RECEPTOR_LINKED_SIGNAL_TRANSDUCTION	114	1.34	0.159315	GO
TOB1PATHWAY	16	1.33	0.163444	BioCarta
HSA00510_N_GLYCAN_BIOSYNTHESIS	40	1.33	0.164884	KEGG
WNTPATHWAY	24	1.33	0.167589	BioCarta
P38MAPKPATHWAY	37	1.32	0.174768	BioCarta
SMOOTH_MUSCLE_CONTRACTION	137	1.31	0.177549	GenMAPP
DNA_REPLICATION_REACTOME	40	1.31	0.183768	GenMAPP
HSA00271_METHIONINE_METABOLISM	16	1.30	0.185456	KEGG
BILE_ACID_BIOSYNTHESIS	21	1.30	0.186820	GenMAPP
HSA05218_MELANOMA	68	1.29	0.200729	KEGG
HSA00970_AMINOACYL_TRNA_BIOSYNTHESIS	38	1.29	0.201813	KEGG
HSA04360_AXON_GUIDANCE	122	1.29	0.202694	KEGG
CARM_ERPATHWAY	24	1.28	0.203752	BioCarta
HSA01030_GLYCAN_STRUCTURES_BIOSYNTHESIS_1	103	1.28	0.205558	KEGG
INFLAMPATHWAY	26	1.28	0.209005	BioCarta
IL2RBPATHWAY	35	1.27	0.213967	BioCarta
HSA05217_BASAL_CELL_CARCINOMA	53	1.27	0.218841	KEGG
INTEGRINPATHWAY	34	1.27	0.219825	BioCarta
SIG_INSULIN_RECEPTOR_PATHWAY_IN_CARDIAC_MYOCYTES	49	1.26	0.223933	SignalingAlliance
FMLPPATHWAY	36	1.26	0.225116	BioCarta
MCALPAINPATHWAY	22	1.26	0.226763	BioCarta
SPRYPATHWAY	16	1.26	0.228120	BioCarta
MITOCHONDRIAL_FATTY_ACID_BETA_OXIDATION	15	-1.58	0.230045	GenMAPP
HSA04020_CALCIIUM_SIGNALING_PATHWAY	161	1.25	0.230060	KEGG
HSA05030_AMYOTROPHIC_LATERAL_SCLEROSIS	17	1.25	0.230342	KEGG
ST_DICTYOSTELIUM_DISCOIDEUM_CAMP_CHEMOTAXIS_PATHWAY	31	1.25	0.232157	STKE
CELL_GROWTH_AND_OR_MAINTENANCE	58	1.25	0.232186	GO
RIBOSOMAL_PROTEINS	71	1.25	0.233136	GenMAPP
HSA05219_BLADDER_CANCER	37	1.25	0.233787	KEGG
PURINE_METABOLISM	105	1.25	0.237111	GenMAPP
HSA00150_ANDROGEN_AND_ESTROGEN_METABOLISM	37	1.25	0.237290	KEGG
VALINE_LEUCINE_AND_ISOLEUCINE_DEGRADATION	34	1.24	0.238275	GenMAPP

ERK5PATHWAY	15	1.24	0.238328	BioCarta
HSA04930_TYPE_II_DIABETES_MELLITUS	42	1.24	0.239016	KEGG
HSA00590_ARACHIDONIC_ACID_METABOLISM	39	-1.63	0.246451	KEGG