Table SV. Kyoto Encyclopedia of Genes and Genomes pathway enrichment analysis results in the turquoise module.

ID	Description	Gene Ratio	Bg Ratio	P-value	p.adjust	q-value	geneID	Count
hsa04510	Focal adhesion	22/376	199/7528	0.0004	0.0727	0.0665	857/7450/131873/858/10319/56924/2534/8516/3672/10000/3791/5579/56034/1950/5155/10398/5295/256076/3082/3913/3908/3655	22
hsa04360	Axon guidance	20/376	181/7528	0.0007	0.0727	0.0665	1945/6586/9037/22885/1073/6237/3983/56920/9353/56924/2534/25791/1808/7225/10398/9723/5295/10509/2049/59277	20
hsa04514	Cell adhesion molecules (CAMs)	17/376	144/7528	0.0008	0.0727	0.0665	1003/5175/58494/7122/90952/5797/3384/1001/51208/6403/3133/8516/23114/947/83700/6404/3655	17
hsa04015	Rap1 signaling pathway	21/376	206/7528	0.0014	0.0957	0.0875	1945/7010/196883/64411/6237/11069/10235/5603/10000/3791/5579/56034/1950/5155/5295/5332/3397/2263/3082/3815/136	21
hsa00350	Tyrosine metabolism	7/376	36/7528	0.0017	0.0957	0.0875	125/4282/8639/316/2954/259307/2805	7
hsa00512	Mucin type O-glycan biosynthesis	6/376	31/7528	0.0038	0.1279	0.1170	9245/51809/374378/2590/56913/2591	6
hsa05418	Fluid shear stress and atherosclerosis	15/376	139/7528	0.0038	0.1279	0.1170	1003/5175/857/7056/858/10365/5603/1728/10000/3791/2949/5155/1843/5295/2353	15
hsa04974	Protein digestion and absorption	11/376	90/7528	0.0050	0.1279	0.1170	4311/131873/8645/1361/3783/9056/477/1803/256076/1359/54407	11
hsa05414	Dilated cardiomyopathy (DCM)	11/376	91/7528	0.0054	0.1279	0.1170	6445/7134/196883/488/1674/8516/3672/6442/776/3908/3655	11
hsa01521	EGFR tyrosine kinase inhibitor resistance	10/376	79/7528	0.0057	0.1279	0.1170	10000/3791/5579/2621/56034/1950/5155/5295/2263/3082	10
hsa04610	Complement and coagulation cascades	10/376	79/7528	0.0057	0.1279	0.1170	7056/7450/1675/710/1361/5627/730/2152/11326/629	10
hsa04270	Vascular smooth muscle contraction	14/376	132/7528	0.0060	0.1279	0.1170	10268/196883/10266/185/94274/5579/27345/5588/3708/10398/5332/10267/776/136	14
hsa00250	Alanine, aspartate and glutamate metabolism	6/376	35/7528	0.0071	0.1279	0.1170	443/84706/5471/57494/259307/2805	6
hsa04512	ECM-receptor interaction	10/376	82/7528	0.0074	0.1279	0.1170	948/7450/131873/10319/8516/3672/256076/3913/3908/3655	10
hsa04022	cGMP-PKG signaling pathway	16/376	166/7528	0.0086	0.1279	0.1170	1910/154/196883/488/3764/148327/5138/185/7225/10000/27345/3708/10398/477/5332/776	16
hsa00360	Phenylalanine metabolism	4/376	17/7528	0.0087	0.1279	0.1170	4282/8639/259307/2805	4
hsa05412	Arrhythmogenic right ventricular cardiomyopathy (ARVC)	9/376	72/7528	0.0092	0.1279	0.1170	6445/488/1674/8516/3672/6442/776/3908/3655	9
hsa04550	Signaling pathways regulating pluripotency of stem cells	14/376	139/7528	0.0094	0.1279	0.1170	8322/9314/6926/5603/3977/10000/4211/3400/3399/5295/3398/3397/2263/84333	14

hsa04925	Aldosterone synthesis and secretion	11/376	98/7528	0.0094	0.1279	0.1170	3777/196883/148327/5138/185/3949/5579/3708/477/5332/776	11
hsa05410	Hypertrophic cardiomyopathy (HCM)	10/376	85/7528	0.0094	0.1279	0.1170	6445/7134/488/1674/8516/3672/6442/776/3908/3655	10
hsa04670	Leukocyte transendothelial migration	12/376	112/7528	0.0098	0.1279	0.1170	1003/5175/58494/7122/90952/51208/11069/5603/5579/10398/83700/5295	12
hsa04911	Insulin secretion	10/376	86/7528	0.0102	0.1279	0.1170	196883/11069/148327/5579/27345/3783/6804/477/5332/776	10
hsa04933	AGE-RAGE signaling pathway in diabetic complications	11/376	100/7528	0.0109	0.1299	0.1188	177/7056/185/5603/10000/5579/5295/5332/1958/2152/2308	11
hsa01230	Biosynthesis of amino acids	9/376	75/7528	0.0119	0.1366	0.1250	5832/5831/2023/84706/5091/3417/230/5214/2805	9
hsa04970	Salivary secretion	10/376	90/7528	0.0139	0.1526	0.1396	154/1469/196883/1470/1472/5579/3783/3708/477/5332	10
hsa04927	Cortisol synthesis and secretion	8/376	65/7528	0.0150	0.1587	0.1452	3777/196883/148327/185/3949/3708/5332/776	8
hsa04072	Phospholipase D signaling pathway	14/376	148/7528	0.0157	0.1601	0.1464	196883/6237/11069/185/8395/2534/10000/56034/1950/5155/5295/5332/2206/3815	14
hsa04024	cAMP signaling pathway	18/376	212/7528	0.0190	0.1862	0.1704	2890/627/154/196883/64411/488/6237/11069/148327/5348/64399/10000/10398/5295/477/4886/2353/776	18
hsa04530	Tight junction	15/376	170/7528	0.0226	0.2140	0.1958	58494/7122/51208/154810/9414/8777/7082/4628/10398/83700/51421/11346/909/4734/776	15
hsa04725	Cholinergic synapse	11/376	112/7528	0.0237	0.2175	0.1989	2791/196883/148327/2534/10000/5579/3708/5295/5332/2353/776	11
hsa05416	Viral myocarditis	7/376	59/7528	0.0267	0.2369	0.2167	6445/857/5551/3133/2534/6442/3908	7
hsa04261	Adrenergic signaling in cardiomyocytes	13/376	145/7528	0.0289	0.2484	0.2273	7134/154/6330/196883/488/11069/148327/185/5603/10000/477/5332/776	13
hsa05144	Malaria	6/376	49/7528	0.0340	0.2834	0.2592	5175/948/2995/6403/3082/3820	6
hsa04014	Ras signaling pathway	18/376	232/7528	0.0416	0.3363	0.3076	1945/2791/7010/627/6237/56924/10235/10000/3791/5579/56034/1950/5155/5295/8437/2263/3082/3815	18
hsa00601	Glycosphingolipid biosynthesis - lacto and neolacto series	4/376	27/7528	0.0433	0.3401	0.3112	2525/10331/2523/8706	4
hsa04151	PI3K-Akt signaling pathway	25/376	354/7528	0.0494	0.3610	0.3302	1945/2791/7010/627/7450/148327/131873/10319/8516/2690/3672/10000/3791/56034/1950/5155/5295/256076/2263/3082/9180/3913/3815/3908/3655	25
hsa05031	Amphetamine addiction	7/376	68/7528	0.0520	0.3610	0.3302	2890/148327/23237/5579/6804/2353/776	7
hsa04310	Wnt signaling pathway	13/376	158/7528	0.0521	0.3610	0.3302	64321/8322/55366/11197/27123/166336/5579/4919/4316/5332/340419/84870/54894	13
hsa04062	Chemokine signaling pathway	15/376	190/7528	0.0525	0.3610	0.3302	2869/2791/196883/57580/10235/6368/9844/2268/10000/5579/9547/5473/5295/5332/6376	15

hsa05215	Prostate cancer	9/376	97/7528	0.0525	0.3610	0.3302	2078/148327/10000/56034/1950/5155/5295/2308/2263	9
hsa04923	Regulation of lipolysis in adipocytes	6/376	55/7528	0.0551	0.3627	0.3318	2167/154/196883/10000/5295/4886	6
hsa01522	Endocrine resistance	9/376	98/7528	0.0554	0.3627	0.3318	4855/196883/5603/10000/28514/2852/5295/638/2353	9
hsa01210	2-Oxocarboxylic acid metabolism	3/376	18/7528	0.0578	0.3649	0.3338	84706/3417/2805	3
hsa05231	Choline metabolism in cancer	9/376	99/7528	0.0584	0.3649	0.3338	8395/10810/10000/5579/56034/1950/5155/5295/2353	9
hsa04750	Inflammatory mediator regulation of TRP channels	9/376	100/7528	0.0615	0.3757	0.3437	196883/2150/5603/51393/5579/5588/3708/5295/5332	9
hsa04919	Thyroid hormone signaling pathway	10/376	116/7528	0.0639	0.3821	0.3495	4855/488/10000/5579/8850/5295/477/5332/2308/5214	10
hsa04973	Carbohydrate digestion and absorption	5/376	44/7528	0.0667	0.3901	0.3568	10000/5579/5295/477/776	5
hsa04540	Gap junction	8/376	88/7528	0.0719	0.4082	0.3735	196883/7082/5579/56034/1950/5155/3708/5332	8
hsa04370	VEGF signaling pathway	6/376	59/7528	0.0727	0.4082	0.3735	5603/10000/3791/5579/5295/3315	6
hsa04918	Thyroid hormone synthesis	7/376	74/7528	0.0753	0.4140	0.3787	196883/148327/9601/5579/3708/477/5332	7
hsa05205	Proteoglycans in cancer	15/376	201/7528	0.0774	0.4158	0.3804	857/6237/8322/858/3316/2719/5603/7078/10000/3791/5579/3708/5295/287/3082	15
hsa04350	TGF-beta signaling pathway	8/376	90/7528	0.0797	0.4158	0.3804	654/4091/3400/3399/3398/3397/653/4092	8
hsa00051	Fructose and mannose metabolism	4/376	33/7528	0.0801	0.4158	0.3804	7264/2762/230/5214	4
hsa04928	Parathyroid hormone synthesis, secretion and action	9/376	106/7528	0.0822	0.4187	0.3830	9365/196883/148327/5579/3708/5332/1958/2353/1594	9
hsa05020	Prion diseases	4/376	35/7528	0.0950	0.4750	0.4346	2534/100506742/730/1958	4
hsa00130	Ubiquinone and other terpenoid-quinone biosynthesis	2/376	11/7528	0.1016	0.4877	0.4462	1728/2677	2
hsa04979	Cholesterol metabolism	5/376	50/7528	0.1026	0.4877	0.4462	948/4023/3949/1071/3931	5
hsa05230	Central carbon metabolism in cancer	6/376	65/7528	0.1046	0.4877	0.4462	10000/3417/5295/2263/5214/3815	6
hsa04614	Renin-angiotensin system	3/376	23/7528	0.1046	0.4877	0.4462	4311/185/1359	3
hsa04640	Hematopoietic cell lineage	8/376	97/7528	0.1108	0.4880	0.4465	4311/948/3672/100133941/947/909/3815/3655	8
hsa04713	Circadian entrainment	8/376	97/7528	0.1108	0.4880	0.4465	2890/2791/196883/5579/3708/5332/2353/776	8
hsa04960	Aldosterone-regulated sodium reabsorption	4/376	37/7528	0.1111	0.4880	0.4465	5579/5295/477/2810	4
hsa04810	Regulation of actin cytoskeleton	15/376	214/7528	0.1154	0.4880	0.4465	1073/6237/8395/56924/8516/9459/3672/56034/1950/5155/4628/10398/5295/2263/3655	15
hsa04724	Glutamatergic synapse	9/376	114/7528	0.1157	0.4880	0.4465	2890/2791/196883/85358/5579/3708/5332/776/54407	9
hsa04972	Pancreatic secretion	8/376	98/7528	0.1158	0.4880	0.4465	196883/488/5579/1361/3708/477/5332/1359	8
hsa04650	Natural killer cell mediated cytotoxicity	10/376	131/7528	0.1189	0.4880	0.4465	3384/5551/3133/3824/2534/5579/3823/3002/5295/919	10
hsa04728	Dopaminergic synapse	10/376	131/7528	0.1189	0.4880	0.4465	2890/2791/148327/5603/10000/5579/3708/5332/2353/776	10
hsa04664	Fc epsilon RI signaling pathway	6/376	68/7528	0.1228	0.4967	0.4544	2534/5603/10000/5295/2206/241	6

hsa05211	Renal cell carcinoma	6/376	69/7528	0.1292	0.5150	0.4711	2034/56924/10000/5155/5295/3082	6
hsa04660	T cell receptor signaling pathway	8/376	101/7528	0.1313	0.5157	0.4717	56924/2534/5603/10000/5588/5295/2353/919	8
hsa04071	Sphingolipid signaling pathway	9/376	119/7528	0.1399	0.5419	0.4957	1901/2534/5603/10000/5579/130367/5295/5332/2206	9
hsa05332	Graft-versus-host disease	4/376	41/7528	0.1465	0.5521	0.5051	5551/3133/3824/3002	4
hsa04371	Apelin signaling pathway	10/376	137/7528	0.1466	0.5521	0.5051	2791/196883/6237/10365/185/10000/3708/5332/1958/1490	10
hsa05218	Melanoma	6/376	72/7528	0.1494	0.5551	0.5078	10000/56034/1950/5155/5295/3082	6
hsa04010	MAPK signaling pathway	19/376	295/7528	0.1522	0.5581	0.5105	1945/7010/627/6237/10235/5603/10000/3791/5579/56034/1950/5155/1843/2353/2263/3315/776/3082/3815	19
hsa04211	Longevity regulating pathway	7/376	89/7528	0.1557	0.5634	0.5155	9365/196883/148327/10000/5468/5295/2308	7
hsa03320	PPAR signaling pathway	6/376	74/7528	0.1635	0.5796	0.5303	2167/33/948/4023/5468/4973	6
hsa04940	Type I diabetes mellitus	4/376	43/7528	0.1657	0.5796	0.5303	5551/3133/3002/5799	4
hsa04611	Platelet activation	9/376	124/7528	0.1665	0.5796	0.5303	196883/7450/2534/10235/5603/10000/3708/5295/5332	9
hsa00603	Glycosphingolipid biosynthesis - globo and isoglobo series	2/376	15/7528	0.1706	0.5813	0.5318	2523/8706	2
hsa04931	Insulin resistance	8/376	108/7528	0.1712	0.5813	0.5318	948/148327/10000/133522/5579/5588/5295/2308	8
hsa04912	GnRH signaling pathway	7/376	93/7528	0.1821	0.6081	0.5563	196883/5603/5579/3708/5332/1958/776	7
hsa04668	TNF signaling pathway	8/376	110/7528	0.1835	0.6081	0.5563	148327/5603/10000/8809/3726/5295/6376/2353	8
hsa04630	JAK-STAT signaling pathway	11/376	162/7528	0.1861	0.6092	0.5573	8835/2690/8554/3977/53342/316/10000/1950/5155/5295/9180	11
hsa04380	Osteoclast differentiation	9/376	128/7528	0.1894	0.6127	0.5606	2534/5603/10000/126014/29760/5468/3726/5295/2353	9
hsa04260	Cardiac muscle contraction	6/376	78/7528	0.1935	0.6187	0.5661	7134/488/1346/84701/477/776	6
hsa04213	Longevity regulating pathway - multiple species	5/376	62/7528	0.1964	0.6210	0.5681	196883/1410/10000/5295/2308	5
hsa04926	Relaxin signaling pathway	9/376	130/7528	0.2013	0.6266	0.5732	1910/2791/196883/148327/5603/10000/5295/5332/2353	9
hsa05146	Amoebiasis	7/376	96/7528	0.2029	0.6266	0.5732	10319/5579/5295/5332/3315/3913/3908	7
hsa00450	Selenocompound metabolism	2/376	17/7528	0.2074	0.6266	0.5732	9060/11185	2
hsa00910	Nitrogen metabolism	2/376	17/7528	0.2074	0.6266	0.5732	762/761	2
hsa04068	FoxO signaling pathway	9/376	132/7528	0.2136	0.6383	0.5840	1901/10365/5603/10000/1950/100132074/5295/2308/10769	9
hsa04961	Endocrine and other factor-regulated calcium reabsorption	4/376	48/7528	0.2170	0.6406	0.5861	9365/5579/477/5332	4
hsa05202	Transcriptional misregulation in cancer	12/376	186/7528	0.2191	0.6406	0.5861	2078/2118/4005/7102/2313/51804/4211/3002/6495/5468/3398/2308	12
hsa04070	Phosphatidylinositol signaling system	7/376	99/7528	0.2247	0.6406	0.5861	8395/5579/3708/3628/5295/5332/3706	7

hsa00511	Other glycan degradation	2/376	18/7528	0.2261	0.6406	0.5861	2517/4758	2
hsa04020	Calcium signaling pathway	12/376	188/7528	0.2297	0.6406	0.5861	7134/1910/154/196883/488/185/5579/3708/5332/3706/776/136	12
hsa04066	HIF-1 signaling pathway	7/376	100/7528	0.2321	0.6406	0.5861	7010/2023/10000/5579/1950/7076/5295	7
hsa05010	Alzheimer disease	11/376	171/7528	0.2350	0.6406	0.5861	4311/6622/488/1346/84701/100506742/4023/25825/3708/5332/776	11
hsa05110	Vibrio cholerae infection	4/376	50/7528	0.2386	0.6406	0.5861	11015/9601/9414/7082	4
hsa04210	Apoptosis	9/376	136/7528	0.2389	0.6406	0.5861	5551/9131/100506742/10000/3002/3708/5295/6709/2353	9
hsa04916	Melanogenesis	7/376	101/7528	0.2397	0.6406	0.5861	1910/196883/8322/148327/5579/5332/3815	7
hsa04130	SNARE interactions in vesicular transport	3/376	34/7528	0.2399	0.6406	0.5861	10791/6804/10282	3
hsa00531	Glycosaminoglycan degradation	2/376	19/7528	0.2449	0.6475	0.5923	8692/3373	2
hsa04924	Renin secretion	5/376	69/7528	0.2612	0.6841	0.6258	154/185/3708/5332/776	5
hsa04917	Prolactin signaling pathway	5/376	70/7528	0.2708	0.7026	0.6428	8835/5603/10000/5295/2353	5
hsa04662	B cell receptor signaling pathway	5/376	71/7528	0.2806	0.7116	0.6510	10000/5579/29760/5295/2353	5
hsa05143	African trypanosomiasis	3/376	37/7528	0.2810	0.7116	0.6510	2150/5579/5332	3
hsa00220	Arginine biosynthesis	2/376	21/7528	0.2826	0.7116	0.6510	84706/2805	2
hsa04727	GABAergic synapse	6/376	89/7528	0.2846	0.7116	0.6510	2791/196883/5334/5579/776/54407	6
hsa00982	Drug metabolism - cytochrome P450	5/376	72/7528	0.2904	0.7129	0.6522	2327/125/316/2949/2328	5
hsa04976	Bile secretion	5/376	72/7528	0.2904	0.7129	0.6522	196883/3949/9429/477/5243	5
hsa05330	Allograft rejection	3/376	38/7528	0.2949	0.7176	0.6564	5551/3133/3002	3
hsa00514	Other types of O-glycan biosynthesis	2/376	22/7528	0.3014	0.7213	0.6599	23127/285203	2
hsa04666	Fc gamma R-mediated phagocytosis	6/376	91/7528	0.3022	0.7213	0.6599	1073/8395/10810/10000/5579/5295	6
hsa00480	Glutathione metabolism	4/376	56/7528	0.3060	0.7213	0.6599	79017/2949/3417/494143	4
hsa05100	Bacterial invasion of epithelial cells	5/376	74/7528	0.3101	0.7213	0.6599	857/858/9844/5295/79767	5
hsa05224	Breast cancer	9/376	147/7528	0.3132	0.7213	0.6599	4855/8322/10000/23462/1950/28514/5295/2353/3815	9
hsa05222	Small cell lung cancer	6/376	93/7528	0.3199	0.7213	0.6599	10319/10000/5295/3913/3908/3655	6
hsa04971	Gastric acid secretion	5/376	75/7528	0.3201	0.7213	0.6599	196883/5579/3708/477/5332	5
hsa05214	Glioma	5/376	75/7528	0.3201	0.7213	0.6599	10000/5579/1950/5155/5295	5
hsa04964	Proximal tubule bicarbonate reclamation	2/376	23/7528	0.3202	0.7213	0.6599	762/477	2
hsa00380	Tryptophan metabolism	3/376	40/7528	0.3226	0.7213	0.6599	11185/316/259307	3
hsa05145	Toxoplasmosis	7/376	113/7528	0.3347	0.7423	0.6791	10319/5603/3949/10000/3913/3908/3655	7
hsa04726	Serotonergic synapse	7/376	115/7528	0.3511	0.7681	0.7027	2791/6532/5579/3708/1843/5332/776	7

hsa04730	Long-term depression	4/376	60/7528	0.3519	0.7681	0.7027	2890/5579/3708/5332	4
hsa01200	Carbon metabolism	7/376	116/7528	0.3594	0.7718	0.7060	2023/84706/5091/3417/230/5214/2805	7
hsa05170	Human immunodeficiency virus 1 infection	12/376	212/7528	0.3697	0.7718	0.7060	2791/1073/3133/56924/5603/10000/5579/3708/5295/2353/919/8906	12
hsa04934	Cushing syndrome	9/376	155/7528	0.3700	0.7718	0.7060	3777/196883/8322/148327/185/3949/3708/5332/776	9
hsa05165	Human papillomavirus infection	18/376	330/7528	0.3837	0.7718	0.7060	4855/7450/8322/148327/131873/3133/10319/8516/3672/10000/23462/1950/5295/2308/256076/3913/3908/3655	18
hsa04915	Estrogen signaling pathway	8/376	138/7528	0.3846	0.7718	0.7060	196883/148327/10000/2852/3708/5295/5332/2353	8
hsa02010	ABC transporters	3/376	45/7528	0.3918	0.7718	0.7060	23460/9429/5243	3
hsa04152	AMPK signaling pathway	7/376	120/7528	0.3925	0.7718	0.7060	948/148327/10000/5468/5295/2308/5214	7
hsa04621	NOD-like receptor signaling pathway	10/376	178/7528	0.3975	0.7718	0.7060	115361/58484/100506742/5603/51393/114769/3708/5332/22900/140609	10
hsa04060	Cytokine-cytokine receptor interaction	16/376	294/7528	0.3980	0.7718	0.7060	94/2662/51554/654/2690/6368/3977/53342/8809/90865/9547/9173/5473/6376/653/9180	16
hsa04930	Type II diabetes mellitus	3/376	46/7528	0.4055	0.7718	0.7060	8835/5295/776	3
hsa05142	Chagas disease (American trypanosomiasis)	6/376	103/7528	0.4101	0.7718	0.7060	5603/10000/5295/5332/2353/919	6
hsa05034	Alcoholism	10/376	180/7528	0.4112	0.7718	0.7060	2791/627/148327/3017/8345/85236/55766/8344/3012/136	10
hsa00270	Cysteine and methionine metabolism	3/376	47/7528	0.4191	0.7718	0.7060	1036/259307/2805	3
hsa00600	Sphingolipid metabolism	3/376	47/7528	0.4191	0.7718	0.7060	7368/130367/4758	3
hsa04625	C-type lectin receptor signaling pathway	6/376	104/7528	0.4191	0.7718	0.7060	6237/5603/53342/10000/3708/5295	6
hsa04012	ErbB signaling pathway	5/376	85/7528	0.4204	0.7718	0.7060	56924/10000/5579/1950/5295	5
hsa05223	Non-small cell lung cancer	4/376	66/7528	0.4208	0.7718	0.7060	10000/5579/1950/5295	4
hsa04392	Hippo signaling pathway - multiple species	2/376	29/7528	0.4289	0.7718	0.7060	9770/79633	2
hsa05132	Salmonella infection	5/376	86/7528	0.4304	0.7718	0.7060	58484/5603/7082/4628/2353	5
hsa00430	Taurine and hypotaurine metabolism	1/376	11/7528	0.4311	0.7718	0.7060	1036	1
hsa04720	Long-term potentiation	4/376	67/7528	0.4321	0.7718	0.7060	2890/5579/3708/5332	4
hsa00280	Valine, leucine and isoleucine degradation	3/376	48/7528	0.4326	0.7718	0.7060	316/27034/259307	3
hsa00520	Amino sugar and nucleotide sugar metabolism	3/376	48/7528	0.4326	0.7718	0.7060	7264/2762/64841	3
hsa04330	Notch signaling pathway	3/376	48/7528	0.4326	0.7718	0.7060	4855/28514/8850	3
hsa04141	Protein processing in endoplasmic reticulum	9/376	165/7528	0.4422	0.7718	0.7060	7466/1410/23645/9601/100506742/56886/9871/10525/64374	9
hsa00010	Glycolysis / Gluconeogenesis	4/376	68/7528	0.4434	0.7718	0.7060	125/2023/230/5214	4

hsa05120	Epithelial cell signaling in Helicobacter pylori infection	4/376	68/7528	0.4434	0.7718	0.7060	58494/5603/7082/83700	4
hsa05150	Staphylococcus aureus infection	4/376	68/7528	0.4434	0.7718	0.7060	1675/6403/6404/629	4
hsa04913	Ovarian steroidogenesis	3/376	49/7528	0.4459	0.7718	0.7060	196883/654/3949	3
hsa04144	Endocytosis	13/376	244/7528	0.4462	0.7718	0.7060	2869/857/6456/64411/858/3133/8395/80223/55040/3949/2263/4734/92421	13
hsa00020	Citrate cycle (TCA cycle)	2/376	30/7528	0.4462	0.7718	0.7060	5091/3417	2
hsa00030	Pentose phosphate pathway	2/376	30/7528	0.4462	0.7718	0.7060	230/5214	2
hsa00760	Nicotinate and nicotinamide metabolism	2/376	30/7528	0.4462	0.7718	0.7060	316/4907	2
hsa04140	Autophagy - animal	7/376	128/7528	0.4587	0.7834	0.7167	6237/64798/23604/10000/5588/3708/5295	7
hsa00330	Arginine and proline metabolism	3/376	50/7528	0.4592	0.7834	0.7167	5832/5831/2805	3
hsa04723	Retrograde endocannabinoid signaling	8/376	148/7528	0.4615	0.7834	0.7167	2890/2791/196883/5603/5579/3708/5332/776	8
hsa05014	Amyotrophic lateral sclerosis (ALS)	3/376	51/7528	0.4723	0.7965	0.7287	2890/100506742/5603	3
hsa00230	Purine metabolism	7/376	130/7528	0.4750	0.7965	0.7287	9060/196883/10606/5138/5471/4907/272	7
hsa05032	Morphine addiction	5/376	91/7528	0.4797	0.7994	0.7314	2869/2791/196883/5138/5579	5
hsa04520	Adherens junction	4/376	72/7528	0.4878	0.8058	0.7372	5797/2534/10810/7082	4
hsa04658	Th1 and Th2 cell differentiation	5/376	92/7528	0.4894	0.8058	0.7372	5603/28514/5588/2353/919	5
hsa05320	Autoimmune thyroid disease	3/376	53/7528	0.4980	0.8076	0.7388	5551/3133/3002	3
hsa01524	Platinum drug resistance	4/376	73/7528	0.4987	0.8076	0.7388	10000/2949/5295/5980	4
hsa05322	Systemic lupus erythematosus	7/376	133/7528	0.4993	0.8076	0.7388	3017/8345/85236/55766/730/8344/3012	7
hsa00562	Inositol phosphate metabolism	4/376	74/7528	0.5094	0.8193	0.7495	8395/3628/5332/3706	4
hsa05212	Pancreatic cancer	4/376	75/7528	0.5201	0.8316	0.7607	9459/10000/1950/5295	4
hsa05133	Pertussis	4/376	76/7528	0.5307	0.8435	0.7717	1073/5603/710/2353	4
hsa00604	Glycosphingolipid biosynthesis - ganglio series	1/376	15/7528	0.5367	0.8482	0.7759	256435	1
hsa04612	Antigen processing and presentation	4/376	77/7528	0.5411	0.8503	0.7779	3133/3824/3823/4801	4
hsa04218	Cellular senescence	8/376	160/7528	0.5509	0.8607	0.7874	6237/3133/5603/10000/3708/5295/2308/776	8
hsa04914	Progesterone-mediated oocyte maturation	5/376	99/7528	0.5551	0.8625	0.7890	196883/5603/10000/5295/3835	5
hsa05213	Endometrial cancer	3/376	58/7528	0.5594	0.8643	0.7907	10000/1950/5295	3
hsa05163	Human cytomegalovirus infection	11/376	225/7528	0.5741	0.8820	0.8068	2791/196883/148327/3133/5603/10000/5579/3708/5295/5332/6376	11
hsa05167	Kaposi sarcoma-associated herpesvirus infection	9/376	186/7528	0.5882	0.8937	0.8176	2791/3133/57580/5603/10000/5155/3708/5295/2353	9
hsa04922	Glucagon signaling pathway	5/376	103/7528	0.5908	0.8937	0.8176	148327/10000/3708/5332/2308	5
hsa05204	Chemical carcinogenesis	4/376	82/7528	0.5915	0.8937	0.8176	125/2949/6799/6817	4

hsa00260	Glycine, serine and threonine metabolism	2/376	40/7528	0.6010	0.9032	0.8263	8639/23464	2
hsa05225	Hepatocellular carcinoma	8/376	168/7528	0.6069	0.9071	0.8299	8322/1728/10000/2949/5579/5295/3082/6595	8
hsa05219	Bladder cancer	2/376	41/7528	0.6146	0.9092	0.8318	23604/1950	2
hsa00590	Arachidonic acid metabolism	3/376	63/7528	0.6161	0.9092	0.8318	5730/4056/5740	3
hsa05226	Gastric cancer	7/376	149/7528	0.6210	0.9092	0.8318	8322/10000/1950/5295/5243/2263/3082	7
hsa00100	Steroid biosynthesis	1/376	19/7528	0.6227	0.9092	0.8318	1594	1
hsa04659	Th17 cell differentiation	5/376	107/7528	0.6249	0.9092	0.8318	5603/53342/5588/2353/919	5
hsa05210	Colorectal cancer	4/376	86/7528	0.6293	0.9106	0.8330	10000/1950/5295/2353	4
hsa04137	Mitophagy - animal	3/376	65/7528	0.6374	0.9106	0.8330	6237/10133/139341	3
hsa05131	Shigellosis	3/376	65/7528	0.6374	0.9106	0.8330	9844/5603/79767	3
hsa00532	Glycosaminoglycan biosynthesis - chondroitin sulfate / dermatan sulfate	1/376	20/7528	0.6416	0.9106	0.8330	55790	1
hsa05221	Acute myeloid leukemia	3/376	66/7528	0.6477	0.9106	0.8330	10000/5295/3815	3
hsa04921	Oxytocin signaling pathway	7/376	153/7528	0.6488	0.9106	0.8330	196883/5579/3708/10398/5332/2353/776	7
hsa00071	Fatty acid degradation	2/376	44/7528	0.6532	0.9106	0.8330	33/125	2
hsa04390	Hippo signaling pathway	7/376	154/7528	0.6555	0.9106	0.8330	8322/654/3398/3397/653/4092/1490	7
hsa00830	Retinol metabolism	3/376	67/7528	0.6578	0.9106	0.8330	125/316/216	3
hsa05166	Human T-cell leukemia virus 1 infection	10/376	219/7528	0.6614	0.9106	0.8330	196883/148327/3133/10000/8850/5295/4316/1958/2353/4801	10
hsa05160	Hepatitis C	7/376	155/7528	0.6622	0.9106	0.8330	7122/51208/8554/3949/10000/1950/5295	7
hsa04920	Adipocytokine signaling pathway	3/376	69/7528	0.6774	0.9267	0.8478	948/10000/5588	3
hsa00565	Ether lipid metabolism	2/376	47/7528	0.6886	0.9375	0.8576	5050/7368	2
hsa00340	Histidine metabolism	1/376	23/7528	0.6928	0.9385	0.8586	443	1
hsa04115	p53 signaling pathway	3/376	72/7528	0.7052	0.9506	0.8696	92344/2810/8493	3
hsa05030	Cocaine addiction	2/376	49/7528	0.7105	0.9511	0.8701	627/148327	2
hsa05161	Hepatitis B	7/376	163/7528	0.7128	0.9511	0.8701	148327/100506742/5603/10000/5579/5295/2353	7
hsa04722	Neurotrophin signaling pathway	5/376	119/7528	0.7162	0.9511	0.8701	627/9500/5603/10000/5295	5
hsa05140	Leishmaniasis	3/376	74/7528	0.7227	0.9511	0.8701	5603/5579/2353	3
hsa00563	Glycosylphosphatidylinositol (GPI)-anchor biosynthesis	1/376	25/7528	0.7228	0.9511	0.8701	80055	1
hsa04978	Mineral absorption	2/376	51/7528	0.7312	0.9556	0.8742	477/55630	2
hsa00790	Folate biosynthesis	1/376	26/7528	0.7367	0.9556	0.8742	84105	1
hsa04950	Maturity onset diabetes of the young	1/376	26/7528	0.7367	0.9556	0.8742	3110	1

hsa04142	Lysosome	5/376	123/7528	0.7429	0.9592	0.8775	3373/2517/4758/8906/53	5
hsa05016	Huntington disease	8/376	193/7528	0.7557	0.9696	0.8870	627/148327/1346/84701/3708/7052/5468/5332	8
hsa05164	Influenza A	7/376	171/7528	0.7581	0.9696	0.8870	56649/5603/10000/5579/90865/56000/5295	7
hsa04620	Toll-like receptor signaling pathway	4/376	104/7528	0.7704	0.9809	0.8973	5603/10000/5295/2353	4
hsa05203	Viral carcinogenesis	8/376	201/7528	0.7938	0.9910	0.9066	148327/3133/3017/8345/85236/8850/5295/8344	8
hsa00052	Galactose metabolism	1/376	31/7528	0.7964	0.9910	0.9066	5214	1
hsa00410	β-Alanine metabolism	1/376	31/7528	0.7964	0.9910	0.9066	8639	1
hsa01523	Antifolate resistance	1/376	31/7528	0.7964	0.9910	0.9066	9429	1
hsa05310	Asthma	1/376	31/7528	0.7964	0.9910	0.9066	2206	1
hsa00140	Steroid hormone biosynthesis	2/376	60/7528	0.8091	0.9995	0.9144	6715/79644	2
hsa04910	Insulin signaling pathway	5/376	137/7528	0.8217	0.9995	0.9144	8835/10000/5295/2308/5577	5
hsa00040	Pentose and glucuronate interconversions	1/376	34/7528	0.8255	0.9995	0.9144	9365	1
hsa05217	Basal cell carcinoma	2/376	63/7528	0.8303	0.9995	0.9144	8322/64399	2
hsa03015	mRNA surveillance pathway	3/376	91/7528	0.8402	0.9995	0.9144	10284/56000/51585	3
hsa05216	Thyroid cancer	1/376	37/7528	0.8505	0.9995	0.9144	5468	1
hsa05340	Primary immunodeficiency	1/376	37/7528	0.8505	0.9995	0.9144	29760	1
hsa04657	IL-17 signaling pathway	3/376	93/7528	0.8507	0.9995	0.9144	5603/53342/2353	3
hsa04064	NF-κB signaling pathway	3/376	95/7528	0.8606	0.9995	0.9144	5579/5588/29760	3
hsa00620	Pyruvate metabolism	1/376	39/7528	0.8651	0.9995	0.9144	5091	1
hsa00564	Glycerophospholipid metabolism	3/376	97/7528	0.8700	0.9995	0.9144	10908/55500/3931	3
hsa04080	Neuroactive ligand-receptor interaction	13/376	338/7528	0.8711	0.9995	0.9144	1910/2890/1901/154/185/9934/2690/7433/2150/10874/4886/5031/136	13
hsa04216	Ferroptosis	1/376	40/7528	0.8719	0.9995	0.9144	1356	1
hsa05033	Nicotine addiction	1/376	40/7528	0.8719	0.9995	0.9144	2890	1
hsa04975	Fat digestion and absorption	1/376	41/7528	0.8783	0.9995	0.9144	948	1
hsa05169	Epstein-Barr virus infection	7/376	201/7528	0.8820	0.9995	0.9144	3133/5603/10000/29760/5295/919/4734	7
hsa00860	Porphyrin and chlorophyll metabolism	1/376	42/7528	0.8844	0.9995	0.9144	1356	1
hsa04150	mTOR signaling pathway	5/376	153/7528	0.8867	0.9995	0.9144	8322/64798/10000/5579/5295	5
hsa04962	Vasopressin-regulated water reabsorption	1/376	44/7528	0.8958	0.9995	0.9144	148327	1
hsa00980	Metabolism of xenobiotics by cytochrome P450	2/376	76/7528	0.8994	0.9995	0.9144	125/2949	2
hsa05220	Chronic myeloid leukemia	2/376	76/7528	0.8994	0.9995	0.9144	10000/5295	2
hsa05162	Measles	4/376	132/7528	0.9023	0.9995	0.9144	2534/10000/5588/5295	4

hsa04721	Synaptic vesicle cycle	2/376	78/7528	0.9074	0.9995	0.9144	6532/6804	2
hsa04340	Hedgehog signaling pathway	1/376	47/7528	0.9107	0.9995	0.9144	64399	1
hsa03018	RNA degradation	2/376	79/7528	0.9112	0.9995	0.9144	2023/5214	2
hsa04217	Necroptosis	5/376	162/7528	0.9135	0.9995	0.9144	9131/90865/55766/92421/3012	5
hsa04742	Taste transduction	2/376	83/7528	0.9248	0.9995	0.9144	196883/8645	2
hsa01212	Fatty acid metabolism	1/376	53/7528	0.9345	0.9995	0.9144	33	1
hsa03460	Fanconi anemia pathway	1/376	54/7528	0.9378	0.9995	0.9144	5980	1
hsa05130	Pathogenic Escherichia coli infection	1/376	55/7528	0.9409	0.9995	0.9144	2534	1
hsa05134	Legionellosis	1/376	55/7528	0.9409	0.9995	0.9144	58484	1
hsa04932	Non-alcoholic fatty liver disease (NAFLD)	4/376	149/7528	0.9447	0.9995	0.9144	1346/84701/10000/5295	4
hsa05323	Rheumatoid arthritis	2/376	91/7528	0.9464	0.9995	0.9144	7010/2353	2
hsa00240	Pyrimidine metabolism	1/376	57/7528	0.9467	0.9995	0.9144	4907	1
hsa04714	Thermogenesis	7/376	231/7528	0.9480	0.9995	0.9144	196883/148327/1346/84701/5603/5468/6595	7
hsa04145	Phagosome	4/376	152/7528	0.9502	0.9995	0.9144	948/3133/8685/4973	4
hsa00310	Lysine degradation	1/376	59/7528	0.9519	0.9995	0.9144	23127	1
hsa04114	Oocyte meiosis	3/376	125/7528	0.9533	0.9995	0.9144	196883/9748/3708	3
hsa00561	Glycerolipid metabolism	1/376	61/7528	0.9566	0.9995	0.9144	4023	1
hsa04623	Cytosolic DNA-sensing pathway	1/376	63/7528	0.9609	0.9995	0.9144	90865	1
hsa05321	Inflammatory bowel disease (IBD)	1/376	65/7528	0.9647	0.9995	0.9144	8809	1
hsa04622	RIG-I-like receptor signaling pathway	1/376	70/7528	0.9728	0.9995	0.9144	5603	1
hsa05012	Parkinson disease	3/376	142/7528	0.9759	0.9995	0.9144	6622/1346/84701	3
hsa05152	Tuberculosis	4/376	179/7528	0.9812	0.9995	0.9144	5603/10000/4801/1594	4
hsa00983	Drug metabolism - other enzymes	1/376	79/7528	0.9829	0.9995	0.9144	2949	1
hsa04146	Peroxisome	1/376	83/7528	0.9861	0.9995	0.9144	3417	1
hsa04110	Cell cycle	2/376	124/7528	0.9874	0.9995	0.9144	1028/2810	2
hsa03013	RNA transport	3/376	165/7528	0.9905	0.9995	0.9144	10605/10284/56000	3
hsa00190	Oxidative phosphorylation	2/376	133/7528	0.9916	0.9995	0.9144	1346/84701	2
hsa04120	Ubiquitin mediated proteolysis	2/376	137/7528	0.9930	0.9995	0.9144	8554/4734	2
hsa05206	MicroRNAs in cancer	7/376	299/7528	0.9939	0.9995	0.9144	6768/4855/7078/9839/5579/5155/5243	7
hsa03008	Ribosome biogenesis in eukaryotes	1/376	105/7528	0.9956	0.9995	0.9144	56000	1
hsa05168	Herpes simplex virus 1 infection	3/376	185/7528	0.9959	0.9995	0.9144	3133/56000/2353	3
hsa04740	Olfactory transduction	1/376	448/7528	1.0000	1.0000	0.9148	5138	1