

Table S1: The information of the ingredients from *Sparganii Rhizoma*.

No.	Ingredients	Molecular formula	CAS No.	Number of target gene
1	adenosine	C10H13N5O4	58-61-7	6
2	1-hexanoic acid	C6H12O2	142-62-1	4
3	docosanoic acid	C22H44O2	112-85-6	4
4	lauric acid	C12H24O2	143-07-7	4
5	linoleic acid	C18H32O2	60-33-3	4
6	1-hydroxy-2-acetyl-4-methylbenzene	C9H10O2	1450-72-2	3
7	1-octanol	C8H18O	111-87-5	3
8	4-hydroxybenzoic acid	C7H6O3	99-96-7	3
9	4-hydroxycinnamic acid	C9H8O3	7400-08-0	3
10	betulinic acid	C30H48O3	472-15-1	3
11	ethyl linoleate	C20H36O2	544-35-4	3
12	hexadecan-1-ol	C16H34O	36653-82-4	3
13	lily aldehyde	C14H20O	80-54-6	3
14	methyl linoleate	C19H34O2	112-63-0	3
15	octadecan-1-ol	C18H38O	8034-90-0	3
16	(7E)-6,9,10-trihydroxy-7-octadecenoic acid	C18H34O5	/	2
17	2-acetylpyrrole	C6H7NO	1072-83-9	2
18	4-hydroxybenzaldehyde	C7H6O2	123-08-0	2
19	9(S),12(S),13(S)-trihydroxy-10(E)-octadecenoic acid	C18H34O5	/	2
20	butyric Acid	C4H8O2	107-92-6	2
21	cyclo(Tyr-Leu)	C15H20N2O3	82863-65-8	2
22	dehydrocostus lactone	C15H18O2	477-43-0	2
23	phenanthrene-9,10-dione	C14H8O2	84-11-7	2
24	sparstolonin B	C15H8O5	259330-61-4	2
25	succinic acid	C4H6O4	110-15-6	2
26	(-)- β -caryophyllene	C15H24	87-44-5	1
27	(+)- α -longipinene	C15H24	5989-08-2	1
28	(+)-borneol	C10H18O	464-43-7	1
29	(+)-R-limonene	C10H16	95327-98-3	1
30	(\pm)-myrtenol	C10H16O	515-00-4	1
31	(\pm)-trans-nerolidol	C15H26O	40716-66-3	1
32	(1R,2R,4S)-2,4-diisopropenyl-1-methyl-1-vinylcyclohexane	C19H38O5	33880-83-0	1
33	1,3,6-trihydroxy-8-methylxanthone	C15H10O5	20716-98-7	1
34	1-docosanol	C22H44	1599-67-3	1
35	1-methyl-4-(1,2,2-trimethylcyclopentyl)-1,3-cyclohexadiene	C15H24	5046-93-5	1
36	1-methyl-4-isopropyl-1-cyclohexene	C10H18	61585-35-1	1
37	2,7-dihydroxyxanthone	C13H8O4	64632-72-0	1
38	24-methylenecycloartanol	C31H52O	1449-09-8	1
39	2-benzylphenol	C13H12O	28994-41-4	1
40	3-ethylphenol	C8H10O	620-17-7	1
41	4-ethyl-2-methoxyphenol	C9H12O2	2785-89-9	1
42	α -selinene	C15H24	473-13-2	1
43	β -pinene	C10H16	18172-67-3	1
44	β -selinene	C15H24	17066-67-0	1
45	β -Sitosterol	C29H50O	83-46-5	1
46	cedran-9-one	C15H24O	13794-73-5	1
47	chrysophanic acid	C15H10O4	481-74-3	1
48	cis-zimtsaeure	C9H8O2	621-82-9	1
49	emodin	C15H10O5	518-82-1	1
50	hydroquinone	C6H6O2	123-31-9	1

51	L(-)-camphor	C10H16O	464-48-2	1
52	methyl palmitate	C17H34O2	112-39-0	1
53	octadec-1-ene	C18H36	112-88-9	1
54	orcinol	C7H8O2	504-15-4	1
55	stigmasterol	C29H48O	83-48-7	1
56	β -eudesmol	C15H26O	473-15-4	1
57	β -pinene	C10H16	127-91-3	1
58	(E)- β -farnesene	C15H24	18794-84-8	/
59	1,3-O-diferuloyl glycerol	C23H24O9	83008-46-2	/
60	1,4,6-trimethylnaphthalene	C13H14	2131-42-2	/
61	1,4-cineole	C10H18O	470-67-7	/
62	16-hexadecanolactone	C16H30O2	109-29-5	/
63	1-isopropyl-4,7-dimethyl-1,2,3,5,6,8a-hexahydro	C15H24	483-76-1	/
64	1-O-feruloyl-3-O-p-coumaryl glycerol	C22H22O8	108026-21-7	/
65	1-palmitoylglycerol	C19H38O4	542-44-9	/
66	2-(3,4-dihydroxyphenyl) ethyl acetate	C10H12O4	69039-02-7	/
67	2,6,10,14-tetramethylpentadecane	C19H40	1921-70-6	/
68	2,6,8-trimethyldecane	C13H28	62108-26-3	/
69	2-methylbutanal	C5H10O	96-17-3	/
70	2-Methylfuran	C5H6O	534-22-5	/
71	2-octanone	C8H16O	111-13-7	/
72	3,5,24-trimethyltetracontane	C43H88	55162-61-3	/
73	3,5-dihydroxy-4-methoxybenzoic acid	C8H8O5	4319-02-2	/
74	4,5-dimethylnonane	C11H24	17302-23-7	/
75	4-hydroxy-4-methyl-2-pentanone	C6H12O2	123-42-2	/
76	4-methoxy-4-oxobutanoic acid	C5H8O4	3878-55-5	/
77	5-hydroxy-2-(hydroxymethyl) pyridine	C6H7NO2	/	/
78	5-hydroxymethyl-2-furaldehyde	C6H6O3	67-47-0	/
79	apiole	C12H14O4	523-80-8	/
80	azelaic acid	C9H16O4	123-99-9	/
81	benzoic acid	C7H6O2	65-85-0	/
82	bornyl acetate	C12H20O2	5655-61-8	/
83	caffeic acid	C9H8O4	331-39-5	/
84	camphene	C10H16	79-92-5	/
85	cis-anethol	C10H12O	104-46-1	/
86	coumaran	C8H8O	496-16-2	/
87	cyclo-(Phe-Phe)	C18H18N2O2	2862-51-3	/
88	cyclopentadecanolide	C15H28O2	106-02-5	/
89	daucosterol	C35H60O6	474-58-8	/
90	decanoic acid	C10H20O2	334-48-5	/
91	D-erythritol	C4H10O4	149-32-6	/
92	diphenylamine	C12H11N	122-39-4	/
93	emodin-3-methyl ether	C16H12O5	521-61-9	/
94	ergosterol peroxide	C28H44O3	2061-64-5	/
95	formononetin	C16H12O4	485-72-3	/
96	fumaric acid	C4H4O4	110-17-8	/
97	furfural	C5H4O2	98-01-1	/
98	furfuryl alcohol	C5H6O2	98-00-0	/
99	glycerol ferulate	C13H16O6	120601-69-6	/
100	heneicosanoic acid 2,3-dihydroxypropyl ester	C24H48O4	245117-31-1	/
101	heptadecane	C17H36	629-78-7	/
102	hexadecane	C16H34	544-76-3	/
103	hexyl formate	C7H14O2	629-33-4	/

104	hydroxytyrosol	C8H10O3	10597-60-1	/
105	iovaleraldehyde	C5H10O	590-86-3	/
106	isopropyl palmitate	C19H38O2	142-91-6	/
107	L-alpha-palmitin	C15H25	5309-46-6	/
108	methyleugenol	C11H14O2	93-15-2	/
109	Myristic acid	C14H28O2	544-63-8	/
110	n-butyl-O-β-D-fructopyranoside	C10H20O6	/	/
111	n-butyl-α-D-fructofuranoside	C10H20O6	80971-59-1	/
112	N-decylhydroxylamine	C10H23NO	26228-72-8	/
113	N-docosane	C22H46	629-97-0	/
114	nectriapyrone	C11H14O3	57685-79-7	/
115	nonyl aldehyde	C9H18O	124-19-6	/
116	N-pentadecyl mercaptan	C15H32S	25276-70-4	/
117	palmitic acid	C16H32O2	57-10-3	/
118	phenethyl alcohol	C8H10O	60-12-8	/
119	pichtosin	C12H20O2	125-12-2	/
120	rhamnazin-3-O-rutinoside	C29H34O16	/	/
121	rosenonolactone	C20H28O3	508-71-4	/
122	rutin	C27H30O16	153-18-4	/
123	R-γ-decalactone	C10H18O2	706-14-9	/
124	syringaldehyde	C9H10O4	134-96-3	/
125	trans-ferulic acid	C10H10O4	537-98-4	/
126	turmerone	C15H22O	82508-15-4	/
127	vanillic acid	C8H8O4	121-34-6	/
128	vanillin	C8H8O3	121-33-5	/
129	β-sitosterol palmitate	C45H80O2	/	/

Table S2: The Gene Ontology (GO) and KEGG enrichment analysis data of the targets for *Sparganii Rhizoma* on lung cancer.

No	Category	Description	target	Enrichment	P
001	KEGG Pathway	Drug metabolism - other enzymes	CES1 CYP2E1 CYP3A4 MPOR RRM1 UGT1A1	83.23	8E-11
002	KEGG Pathway	Steroid hormone biosynthesis	CYP1A2 CYP2E1 CYP3A4 CYP19A1 UGT1A1	90.61	2E-09
003	KEGG Pathway	Chemical carcinogenesis - DNA adducts	CYP1A2 CYP2E1 CYP3A4 PTGS2 UGT1A1	79.13	5E-09
004	KEGG Pathway	Pathways in cancer	ALK BCL2 NQO1 EGFR FGFR2 MAP2K1 PTGS2 RET	16.86	1E-08
005	KEGG Pathway	Bile secretion	ABCC2 CYP3A4 ABCB1 ABCB11 UGT1A1	62.42	2E-08
006	KEGG Pathway	Chemical carcinogenesis - receptor activation	BCL2 CYP1A2 CYP3A4 EGFR MAP2K1 UGT1A1	31.36	3E-08
007	KEGG Pathway	Chemical carcinogenesis - reactive oxygen species	CYP1A2 CYP2E1 NQO1 EGFR MAP2K1 SOD1	29.83	4E-08
008	KEGG Pathway	Gastric cancer	BCL2 EGFR FGFR2 ABCB1 MAP2K1	37.45	2E-07
009	KEGG Pathway	Central carbon metabolism in cancer	EGFR FGFR2 MAP2K1 RET	63.30	5E-07
010	KEGG Pathway	Drug metabolism - cytochrome P450	CYP1A2 CYP2E1 CYP3A4 UGT1A1	61.57	5E-07
011	KEGG Pathway	Non-small cell lung cancer	ALK EGFR MAP2K1 RET	61.57	5E-07
012	KEGG Pathway	Metabolism of xenobiotics by cytochrome P450	CYP1A2 CYP2E1 CYP3A4 UGT1A1	56.89	7E-07
013	KEGG Pathway	EGFR tyrosine kinase inhibitor resistance	BCL2 EGFR FGFR2 MAP2K1	56.18	8E-07
014	KEGG Pathway	Prostate cancer	BCL2 EGFR FGFR2 MAP2K1	45.86	2E-06
015	KEGG Pathway	Endocrine resistance	BCL2 EGFR MAP2K1 ABCB11	45.40	2E-06
016	KEGG Pathway	Linoleic acid metabolism	CYP1A2 CYP2E1 CYP3A4	112.36	3E-06
017	KEGG Pathway	MicroRNAs in cancer	BCL2 EGFR ABCB1 MAP2K1 PTGS2	18.01	7E-06
018	KEGG Pathway	ABC transporters	ABCC2 ABCB1 ABCB11	74.91	9E-06
019	KEGG Pathway	PI3K-Akt signaling pathway	BCL2 EGFR FGFR2 MAP2K1 RET	15.52	2E-05
020	KEGG Pathway	Arachidonic acid metabolism	CYP2E1 PTGS1 PTGS2	55.26	2E-05
021	KEGG Pathway	Retinol metabolism	CYP1A2 CYP3A4 UGT1A1	49.57	3E-05
022	KEGG Pathway	Colorectal cancer	BCL2 EGFR MAP2K1	38.74	6E-05
023	KEGG Pathway	PD-L1 expression and PD-1 checkpoint pathway in cancer	ALK EGFR MAP2K1	37.45	7E-05
024	KEGG Pathway	HIF-1 signaling pathway	BCL2 EGFR MAP2K1	30.92	0.0001
025	KEGG Pathway	MAPK signaling pathway	EGFR FGFR2 MAP2K1 RET	14.98	0.0001
026	KEGG Pathway	Parathyroid hormone synthesis, secretion and action	BCL2 EGFR MAP2K1	29.31	0.0001
027	KEGG Pathway	Serotonergic synapse	MAP2K1 PTGS1 PTGS2	29.31	0.0001
028	KEGG Pathway	Estrogen signaling pathway	BCL2 EGFR MAP2K1	24.25	0.0003
029	KEGG Pathway	Oxytocin signaling pathway	EGFR MAP2K1 PTGS2	21.89	0.0003
030	KEGG Pathway	Hepatocellular carcinoma	NQO1 EGFR MAP2K1	19.83	0.0005
031	KEGG Pathway	Thyroid cancer	MAP2K1 RET	60.73	0.0005
032	KEGG Pathway	Bladder cancer	EGFR MAP2K1	54.81	0.0006
033	KEGG Pathway	Alcoholism	SLC29A1 SLC29A2 MAP2K1	17.93	0.0006
034	KEGG Pathway	Focal adhesion	BCL2 EGFR MAP2K1	16.60	0.0008
035	KEGG Pathway	Pathways of neurodegeneration - multiple diseases	BCL2 MAP2K1 PTGS2 SOD1	9.31	0.0008
036	KEGG Pathway	Rap1 signaling pathway	EGFR FGFR2 MAP2K1	15.90	0.0009
037	KEGG Pathway	Ovarian steroidogenesis	CYP19A1 PTGS2	44.06	0.0009
038	KEGG Pathway	Human cytomegalovirus infection	EGFR MAP2K1 PTGS2	14.91	0.001
039	KEGG Pathway	Regulation of actin cytoskeleton	EGFR FGFR2 MAP2K1	14.66	0.0011
040	KEGG Pathway	Ras signaling pathway	EGFR FGFR2 MAP2K1	14.16	0.0012
041	KEGG Pathway	Pyrimidine metabolism	DCK RRM1	38.74	0.0012
042	KEGG Pathway	Endometrial cancer	EGFR MAP2K1	38.09	0.0013
043	KEGG Pathway	Regulation of lipolysis in adipocytes	PTGS1 PTGS2	38.09	0.0013
044	KEGG Pathway	VEGF signaling pathway	MAP2K1 PTGS2	37.45	0.0013
045	KEGG Pathway	Calcium signaling pathway	EGFR FGFR2 RET	13.27	0.0015
046	KEGG Pathway	Acute myeloid leukemia	MPO MAP2K1	33.05	0.0017
047	KEGG Pathway	Melanoma	EGFR MAP2K1	30.78	0.0019
048	KEGG Pathway	Platinum drug resistance	BCL2 ABCC2	29.96	0.002
049	KEGG Pathway	Glioma	EGFR MAP2K1	29.57	0.0021
050	KEGG Pathway	Pancreatic cancer	EGFR MAP2K1	29.18	0.0021
051	KEGG Pathway	Nucleotide metabolism	DCK RRM1	26.44	0.0026
052	KEGG Pathway	ErbB signaling pathway	EGFR MAP2K1	26.13	0.0027
053	KEGG Pathway	Gap junction	EGFR MAP2K1	24.43	0.003
054	KEGG Pathway	Small cell lung cancer	BCL2 PTGS2	24.16	0.0031
055	KEGG Pathway	GnRH signaling pathway	EGFR MAP2K1	24.16	0.0031
056	KEGG Pathway	Human papillomavirus infection	EGFR MAP2K1 PTGS2	10.12	0.0032
057	KEGG Pathway	Choline metabolism in cancer	EGFR MAP2K1	22.70	0.0035
058	KEGG Pathway	NF-kappa B signaling pathway	BCL2 PTGS2	21.40	0.0039
059	KEGG Pathway	Cholinergic synapse	BCL2 MAP2K1	19.54	0.0047
060	KEGG Pathway	TNF signaling pathway	MAP2K1 PTGS2	18.88	0.005
061	KEGG Pathway	Neurotrophin signaling pathway	BCL2 MAP2K1	18.73	0.0051
062	KEGG Pathway	Sphingolipid signaling pathway	BCL2 MAP2K1	18.42	0.0053
063	KEGG Pathway	Purine metabolism	DCK RRM1	17.56	0.0058
064	KEGG Pathway	Relaxin signaling pathway	EGFR MAP2K1	17.29	0.006
065	KEGG Pathway	FoxO signaling pathway	EGFR MAP2K1	16.90	0.0062
066	KEGG Pathway	Apoptosis	BCL2 MAP2K1	16.52	0.0065
067	KEGG Pathway	Fluid shear stress and atherosclerosis	BCL2 NQO1	15.94	0.007
068	KEGG Pathway	Signaling pathways regulating pluripotency of stem cells	FGFR2 MAP2K1	15.61	0.0073
069	KEGG Pathway	Breast cancer	EGFR MAP2K1	15.18	0.0077
070	KEGG Pathway	Phospholipase D signaling pathway	EGFR MAP2K1	15.08	0.0078
071	KEGG Pathway	Biosynthesis of cofactors	NQO1 UGT1A1	14.69	0.0082
072	KEGG Pathway	Cushing syndrome	EGFR MAP2K1	14.50	0.0084
073	KEGG Pathway	Efferocytosis	MAP2K1 PTGS2	14.41	0.0085
074	KEGG Pathway	Hepatitis C	EGFR MAP2K1	14.13	0.0088
075	KEGG Pathway	Hepatitis B	BCL2 MAP2K1	13.79	0.0092
076	KEGG Pathway	JAK-STAT signaling pathway	BCL2 EGFR	13.38	0.0098
077	KEGG Pathway	Autophagy - animal	BCL2 MAP2K1	13.30	0.0099
078	KEGG Pathway	Neutrophil extracellular trap formation	MPO MAP2K1	11.70	0.0126
079	KEGG Pathway	Kaposi sarcoma-associated herpesvirus infection	MAP2K1 PTGS2	11.47	0.0131
080	KEGG Pathway	Proteoglycans in cancer	EGFR MAP2K1	11.02	0.0141
081	KEGG Pathway	Human immunodeficiency virus 1 infection	BCL2 MAP2K1	10.55	0.0153
082	KEGG Pathway	Shigellosis	BCL2 EGFR	9.02	0.0206
083	KEGG Pathway	Salmonella infection	BCL2 MAP2K1	8.95	0.0209
084	KEGG Pathway	Endocytosis	EGFR FGFR2	8.92	0.021
085	KEGG Pathway	Amyotrophic lateral sclerosis	BCL2 SOD1	6.06	0.0428
086	KEGG Pathway	Alzheimer disease	MAP2K1 PTGS2	5.75	0.0471

001	GO Molecular Functions	heme binding	CYP1A2 CYP2E1 CYP3A4 CYP19A1 MPO PTGS1 PTGS2	55.39	3E-11
002	GO Molecular Functions	tetrapyrrole binding	CYP1A2 CYP2E1 CYP3A4 CYP19A1 MPO PTGS1 PTGS2	51.74	6E-11
003	GO Molecular Functions	oxidoreductase activity	CYP1A2 CYP2E1 CYP3A4 CYP19A1 NQO1 MPO PTGS1 PTGS2	15.48	3E-10
004	GO Molecular Functions	aromatase activity	CYP1A2 CYP2E1 CYP3A4 CYP19A1	172.86	7E-09
005	GO Molecular Functions	oxidoreductase activity, acting on paired donors, with incorporation	CYP1A2 CYP2E1 CYP3A4 CYP19A1 PTGS1 PTGS2	37.66	1E-08
006	GO Molecular Functions	antioxidant activity	NQO1 MPO PTGS1 PTGS2 SOD1	66.09	1E-08
007	GO Molecular Functions	uridine transmembrane transporter activity	SLC29A1 SLC29A2 SLC28A3	561.80	1E-08
008	GO Molecular Functions	pyrimidine nucleobase transmembrane transporter activity	SLC29A1 SLC29A2 SLC28A3	481.54	2E-08
009	GO Molecular Functions	pyrimidine nucleoside transmembrane transporter activity	SLC29A1 SLC29A2 SLC28A3	421.35	4E-08
010	GO Molecular Functions	oxidoreductase activity, acting on paired donors, with incorporation	CYP1A2 CYP2E1 CYP3A4 CYP19A1	107.01	5E-08
011	GO Molecular Functions	nucleoside transmembrane transporter activity	SLC29A1 SLC29A2 SLC28A3	337.08	8E-08
012	GO Molecular Functions	purine nucleobase transmembrane transporter activity	SLC29A1 SLC29A2 SLC28A3	337.08	8E-08
013	GO Molecular Functions	oxidoreductase activity, acting on CH or CH2 groups	CYP1A2 CYP3A4 RRM1	306.43	1E-07
014	GO Molecular Functions	nucleobase transmembrane transporter activity	SLC29A1 SLC29A2 SLC28A3	306.43	1E-07
015	GO Molecular Functions	protein tyrosine kinase activity	ALK EGFR FGFR2 MAP2K1 RET	40.71	1E-07
016	GO Molecular Functions	ABC-type xenobiotic transporter activity	ABCC2 ABCB1 ABCB11	240.77	2E-07
017	GO Molecular Functions	transmembrane receptor protein tyrosine kinase activity	ALK EGFR FGFR2 RET	74.91	2E-07
018	GO Molecular Functions	transmembrane receptor protein kinase activity	ALK EGFR FGFR2 RET	56.89	7E-07
019	GO Molecular Functions	prostaglandin-endoperoxide synthase activity	PTGS1 PTGS2	1123.59	8E-07
020	GO Molecular Functions	phosphotransferase activity, alcohol group as acceptor	ALK DCK EGFR FGFR2 MAP2K1 RET TOP1	11.70	2E-06
021	GO Molecular Functions	steroid hydroxylase activity	CYP1A2 CYP3A4 CYP19A1	129.65	2E-06
022	GO Molecular Functions	monoxygenase activity	CYP1A2 CYP2E1 CYP3A4 CYP19A1	42.80	2E-06
023	GO Molecular Functions	uracil transmembrane transporter activity	SLC29A1 SLC29A2	749.06	2E-06
024	GO Molecular Functions	kinase activity	ALK DCK EGFR FGFR2 MAP2K1 RET TOP1	10.83	3E-06
025	GO Molecular Functions	xenobiotic transmembrane transporter activity	ABCC2 ABCB1 ABCB11	105.34	3E-06
026	GO Molecular Functions	oxygen binding	CYP2E1 CYP3A4 CYP19A1	99.14	4E-06
027	GO Molecular Functions	oxidoreductase activity, acting on CH or CH2 groups, quinone or	CYP1A2 CYP3A4	561.80	5E-06
028	GO Molecular Functions	caffeine oxidase activity	CYP1A2 CYP3A4	561.80	5E-06
029	GO Molecular Functions	nucleoside:sodium symporter activity	SLC29A1 SLC28A3	561.80	5E-06
030	GO Molecular Functions	guanine transmembrane transporter activity	SLC29A1 SLC29A2	561.80	5E-06
031	GO Molecular Functions	purine nucleoside transmembrane transporter activity	SLC29A1 SLC29A2	561.80	5E-06
032	GO Molecular Functions	cytidine transmembrane transporter activity	SLC29A1 SLC29A2	561.80	5E-06
033	GO Molecular Functions	pyrimidine- and adenosine-specific:sodium symporter activity	SLC29A1 SLC28A3	561.80	5E-06
034	GO Molecular Functions	nucleobase:monoatomic cation symporter activity	SLC29A1 SLC28A3	561.80	5E-06
035	GO Molecular Functions	superoxide dismutase activity	NQO1 SOD1	449.44	8E-06
036	GO Molecular Functions	oxidoreductase activity, acting on superoxide radicals as acceptor	NQO1 SOD1	449.44	8E-06
037	GO Molecular Functions	estrogen 2-hydroxylase activity	CYP1A2 CYP3A4	449.44	8E-06
038	GO Molecular Functions	adenine transmembrane transporter activity	SLC29A1 SLC29A2	449.44	8E-06
039	GO Molecular Functions	protein kinase activity	ALK EGFR FGFR2 MAP2K1 RET TOP1	11.95	9E-06
040	GO Molecular Functions	iron ion binding	CYP1A2 CYP2E1 CYP3A4 CYP19A1	29.37	1E-05
041	GO Molecular Functions	ABC-type transporter activity	ABCC2 ABCB1 ABCB11	70.22	1E-05
042	GO Molecular Functions	nucleobase-containing compound transmembrane transporter activity	SLC29A1 SLC29A2 SLC28A3	59.14	2E-05
043	GO Molecular Functions	carbohydrate derivative transmembrane transporter activity	SLC29A1 SLC29A2 SLC28A3	59.14	2E-05
044	GO Molecular Functions	peroxidase activity	MPO PTGS1 PTGS2	59.14	2E-05
045	GO Molecular Functions	oxidoreductase activity, acting on peroxide as acceptor	MPO PTGS1 PTGS2	57.13	2E-05
046	GO Molecular Functions	estrogen 16-alpha-hydroxylase activity	CYP1A2 CYP3A4	280.90	2E-05
047	GO Molecular Functions	active transmembrane transporter activity	ABCC2 SLC29A1 ABCB1 ABCB11 SLC28A3	12.27	5E-05
048	GO Molecular Functions	ATPase-coupled transmembrane transporter activity	ABCC2 ABCB1 ABCB11	34.40	9E-05
049	GO Molecular Functions	neurotransmitter transmembrane transporter activity	SLC29A1 SLC29A2	107.01	0.0002
050	GO Molecular Functions	oxidoreductase activity, acting on single donors with incorporation	PTGS1 PTGS2	93.63	0.0002
051	GO Molecular Functions	oxidoreductase activity, acting on single donors with incorporation	PTGS1 PTGS2	89.89	0.0002
052	GO Molecular Functions	protein kinase activator activity	ALK EGFR MAP2K1	25.16	0.0002
053	GO Molecular Functions	kinase activator activity	ALK EGFR MAP2K1	23.74	0.0003
054	GO Molecular Functions	protein phosphatase binding	BCL2 EGFR SOD1	23.57	0.0003
055	GO Molecular Functions	protein tyrosine kinase activator activity	ALK EGFR	70.22	0.0004
056	GO Molecular Functions	oxidoreductase activity, acting on paired donors, with incorporation	CYP2E1 CYP3A4	66.09	0.0004
057	GO Molecular Functions	primary active transmembrane transporter activity	ABCC2 ABCB1 ABCB11	20.31	0.0004
058	GO Molecular Functions	heparin binding	ALK FGFR2 MPO	19.37	0.0005
059	GO Molecular Functions	carboxylic acid transmembrane transporter activity	ABCC2 ABCB1 ABCB11	18.22	0.0006
060	GO Molecular Functions	organic acid transmembrane transporter activity	ABCC2 ABCB1 ABCB11	18.12	0.0006
061	GO Molecular Functions	phosphatase binding	BCL2 EGFR SOD1	17.83	0.0006
062	GO Molecular Functions	protein kinase regulator activity	ALK EGFR MAP2K1	13.99	0.0013
063	GO Molecular Functions	glycosaminoglycan binding	ALK FGFR2 MPO	13.93	0.0013
064	GO Molecular Functions	organic anion transmembrane transporter activity	ABCC2 ABCB1 ABCB11	12.58	0.0017
065	GO Molecular Functions	sulfur compound binding	ALK FGFR2 MPO	12.44	0.0018
066	GO Molecular Functions	kinase regulator activity	ALK EGFR MAP2K1	12.08	0.0019
067	GO Molecular Functions	solute:sodium symporter activity	SLC29A1 SLC28A3	28.45	0.0023
068	GO Molecular Functions	ubiquitin protein ligase binding	BCL2 EGFR ABCB1	11.05	0.0025
069	GO Molecular Functions	ubiquitin-like protein ligase binding	BCL2 EGFR ABCB1	10.40	0.0029
070	GO Molecular Functions	dioxigenase activity	PTGS1 PTGS2	24.16	0.0031
071	GO Molecular Functions	protein homodimerization activity	DCK FGFR2 PTGS2 UGT1A1	6.29	0.0035
072	GO Molecular Functions	steroid binding	CYP3A4 UGT1A1	21.00	0.0041
073	GO Molecular Functions	solute:monoatomic cation symporter activity	SLC29A1 SLC28A3	19.37	0.0048
074	GO Molecular Functions	electron transfer activity	CYP1A2 CYP19A1	19.21	0.0049
075	GO Molecular Functions	ATP hydrolysis activity	ABCC2 ABCB1 ABCB11	8.04	0.006
076	GO Molecular Functions	protein-folding chaperone binding	CYP2E1 SOD1	16.90	0.0062
077	GO Molecular Functions	protein serine/threonine kinase activity	EGFR MAP2K1 TOP1	7.89	0.0063
078	GO Molecular Functions	growth factor binding	EGFR FGFR2	16.65	0.0064
079	GO Molecular Functions	symporter activity	SLC29A1 SLC28A3	15.29	0.0076
080	GO Molecular Functions	sodium ion transmembrane transporter activity	SLC29A1 SLC28A3	13.87	0.0091
081	GO Molecular Functions	lipid transporter activity	ABCB1 ABCB11	13.46	0.0097
082	GO Molecular Functions	ATP-dependent activity	ABCC2 ABCB1 ABCB11	5.78	0.0147
083	GO Molecular Functions	enzyme activator activity	ALK EGFR MAP2K1	5.56	0.0162
084	GO Molecular Functions	chromatin binding	EGFR MPO TOP1	5.33	0.0182
085	GO Molecular Functions	protein domain specific binding	BCL2 RRM1 TOP1	5.15	0.0199
086	GO Molecular Functions	active monoatomic ion transmembrane transporter activity	SLC29A1 SLC28A3	7.86	0.0266
087	GO Molecular Functions	inorganic molecular entity transmembrane transporter activity	ABCC2 SLC29A1 SLC28A3	4.59	0.0268
088	GO Molecular Functions	secondary active transmembrane transporter activity	SLC29A1 SLC28A3	7.80	0.027
089	GO Molecular Functions	ribonucleoside triphosphate phosphatase activity	ABCC2 ABCB1 ABCB11	4.51	0.028

090	GO Molecular Functions	protein heterodimerization activity	BCL2 UGT1A1	6.42	0.0385
001	GO Cellular Components	apical plasma membrane	ABCC2 EGFR SLC29A1 SLC29A2 ABCB1 ABCB11	16.65	1E-06
002	GO Cellular Components	apical part of cell	ABCC2 EGFR SLC29A1 SLC29A2 ABCB1 ABCB11	14.31	3E-06
003	GO Cellular Components	intercellular canalculus	ABCC2 ABCB11	374.53	1E-05
004	GO Cellular Components	neuronal cell body	NQO1 RET RRM1 SOD1 TOP1	11.42	7E-05
005	GO Cellular Components	cell body	NQO1 RET RRM1 SOD1 TOP1	10.05	0.0001
006	GO Cellular Components	nuclear envelope	BCL2 EGFR PTGS2 RRM1	8.97	0.001
007	GO Cellular Components	receptor complex	ALK EGFR FGFR2 RET	8.28	0.0013
008	GO Cellular Components	basolateral plasma membrane	EGFR SLC29A1 SLC29A2	13.07	0.0015
009	GO Cellular Components	basal plasma membrane	EGFR SLC29A1 SLC29A2	11.58	0.0022
010	GO Cellular Components	basal part of cell	EGFR SLC29A1 SLC29A2	10.87	0.0026
011	GO Cellular Components	nuclear membrane	BCL2 EGFR PTGS2	10.70	0.0027
012	GO Cellular Components	early endosome	EGFR MAP2K1 RET	7.70	0.0068
013	GO Cellular Components	endosome membrane	EGFR RET ABCB11	5.85	0.0142
014	GO Cellular Components	dendrite	NQO1 RET SOD1	5.41	0.0175
015	GO Cellular Components	dendritic tree	NQO1 RET SOD1	5.39	0.0176
016	GO Cellular Components	organelle outer membrane	BCL2 PTGS2	8.95	0.0209
017	GO Cellular Components	outer membrane	BCL2 PTGS2	8.88	0.0212
018	GO Cellular Components	membrane raft	EGFR PTGS2	7.80	0.027
019	GO Cellular Components	membrane microdomain	EGFR PTGS2	7.75	0.0273
020	GO Cellular Components	endoplasmic reticulum lumen	CES1 PTGS2	7.18	0.0314
021	GO Cellular Components	late endosome	EGFR MAP2K1	7.13	0.0318
022	GO Cellular Components	vesicle lumen	EGFR MPO	6.85	0.0342
023	GO Cellular Components	endocytic vesicle	EGFR MPO	6.38	0.0389
024	GO Cellular Components	cell projection membrane	EGFR SLC28A3	6.33	0.0395
001	GO Biological Processes	response to xenobiotic stimulus	BCL2 ABCC2 CYP1A2 CYP2E1 CYP3A4 NQO1 EGFR SLC29A1 SLC29A2 ABCB1 ABCB11 NR1H2 SLC28A3	44.22	2E-25
002	GO Biological Processes	cellular response to xenobiotic stimulus	ABCC2 CYP1A2 CYP2E1 CYP3A4 NQO1 EGFR SLC29A1 SLC29A2 ABCB1 ABCB11 NR1H2 SLC28A3	69.86	5E-20
003	GO Biological Processes	xenobiotic metabolic process	ABCC2 CYP1A2 CYP2E1 CYP3A4 NQO1 SLC29A1 ABCB1 ABCB11 NR1H2 SLC28A3	98.09	5E-20
004	GO Biological Processes	xenobiotic transport	ABCC2 SLC29A1 SLC29A2 ABCB1 ABCB11 NR1H2 SLC28A3	163.86	1E-14
005	GO Biological Processes	xenobiotic transmembrane transport	ABCC2 SLC29A1 SLC29A2 ABCB11 SLC28A3	330.47	2E-12
006	GO Biological Processes	response to toxic substance	BCL2 CES1 NQO1 MPO ABCB1 PTGS1 PTGS2 SOD1	36.39	3E-11
007	GO Biological Processes	steroid metabolic process	CES1 CYP1A2 CYP2E1 CYP3A4 CYP19A1 ABCB11 NR1H2	34.71	5E-11
008	GO Biological Processes	small molecule biosynthetic process	CES1 CYP1A2 CYP2E1 CYP3A4 CYP19A1 MPO PTGS1 PTGS2	21.89	1E-10
009	GO Biological Processes	reactive oxygen species metabolic process	BCL2 CYP1A2 NQO1 EGFR MPO SOD1	61.85	5E-10
010	GO Biological Processes	response to oxidative stress	BCL2 NQO1 EGFR MPO PTGS1 PTGS2 SOD1 ABCB11	24.43	8E-10
011	GO Biological Processes	gland development	BCL2 CYP19A1 EGFR SLC29A1 FGFR2 MAP2K1 SOD1 UCP1	21.15	2E-09
012	GO Biological Processes	detoxification	NQO1 MPO ABCB1 PTGS1 PTGS2 SOD1	46.82	3E-09
013	GO Biological Processes	olefinic compound metabolic process	CYP1A2 CYP2E1 CYP3A4 CYP19A1 PTGS1 PTGS2	46.49	3E-09
014	GO Biological Processes	vascular process in circulatory system	ABCC2 EGFR SLC29A1 SLC29A2 ABCB1 PTGS2 SOD1	28.70	3E-09
015	GO Biological Processes	xenobiotic catabolic process	CYP1A2 CYP3A4 NR1H2 UGT1A1	179.77	6E-09
016	GO Biological Processes	purine nucleoside transmembrane transport	SLC29A1 SLC29A2 SLC28A3	674.16	6E-09
017	GO Biological Processes	organic hydroxy compound metabolic process	BCL2 CES1 CYP1A2 CYP2E1 CYP3A4 CYP19A1 NQO1 ABCB1 ABCB11 NR1H2 SLC28A3	18.61	7E-09
018	GO Biological Processes	monocarboxylic acid biosynthetic process	CYP1A2 CYP2E1 CYP3A4 PTGS1 PTGS2 ABCB11	40.37	7E-09
019	GO Biological Processes	circulatory system process	ABCC2 EGFR SLC29A1 SLC29A2 ABCB1 PTGS1 PTGS2 SOD1	17.66	1E-08
020	GO Biological Processes	fatty acid metabolic process	CES1 CYP1A2 CYP2E1 CYP3A4 PTGS1 PTGS2 ABCB11	24.28	1E-08
021	GO Biological Processes	monocarboxylic acid metabolic process	CES1 CYP1A2 CYP2E1 CYP3A4 PTGS1 PTGS2 ABCB11 UGT1A1	17.25	1E-08
022	GO Biological Processes	monoterpenoid metabolic process	CYP1A2 CYP2E1 CYP3A4	561.80	1E-08
023	GO Biological Processes	uridine transmembrane transport	SLC29A1 SLC29A2 SLC28A3	561.80	1E-08
024	GO Biological Processes	pyrimidine nucleoside transport	SLC29A1 SLC29A2 SLC28A3	561.80	1E-08
025	GO Biological Processes	cellular oxidant detoxification	NQO1 MPO PTGS1 PTGS2 SOD1	61.74	2E-08
026	GO Biological Processes	pyrimidine nucleobase transport	SLC29A1 SLC29A2 SLC28A3	481.54	2E-08
027	GO Biological Processes	terpenoid metabolic process	CYP1A2 CYP2E1 CYP3A4 EGFR UGT1A1	56.75	3E-08
028	GO Biological Processes	lipid biosynthetic process	CES1 CYP1A2 CYP2E1 CYP3A4 CYP19A1 PTGS1 PTGS2 SOD1	15.03	3E-08
029	GO Biological Processes	nucleoside transport	SLC29A1 SLC29A2 SLC28A3	421.35	4E-08
030	GO Biological Processes	nucleoside transmembrane transport	SLC29A1 SLC29A2 SLC28A3	421.35	4E-08
031	GO Biological Processes	purine nucleobase transmembrane transport	SLC29A1 SLC29A2 SLC28A3	421.35	4E-08
032	GO Biological Processes	long-chain fatty acid metabolic process	CYP1A2 CYP2E1 CYP3A4 PTGS1 PTGS2	51.54	4E-08
033	GO Biological Processes	estrogen metabolic process	CYP1A2 CYP3A4 CYP19A1 UGT1A1	112.36	4E-08
034	GO Biological Processes	hydrogen peroxide metabolic process	CYP1A2 EGFR MPO SOD1	109.62	5E-08
035	GO Biological Processes	cellular detoxification	NQO1 MPO PTGS1 PTGS2 SOD1	48.02	6E-08
036	GO Biological Processes	fatty acid biosynthetic process	CYP1A2 CYP2E1 CYP3A4 PTGS1 PTGS2	48.02	6E-08
037	GO Biological Processes	response to estradiol	CYP19A1 NQO1 EGFR PTGS2 UGT1A1	47.61	6E-08
038	GO Biological Processes	response to ethanol	NQO1 FGFR2 SOD1 ABCB11 UGT1A1	44.59	9E-08
039	GO Biological Processes	cellular response to toxic substance	NQO1 MPO PTGS1 PTGS2 SOD1	44.24	9E-08
040	GO Biological Processes	response to alcohol	CES1 NQO1 FGFR2 SOD1 ABCB11 UGT1A1	25.63	1E-07
041	GO Biological Processes	isoprenoid metabolic process	CYP1A2 CYP2E1 CYP3A4 EGFR UGT1A1	41.61	1E-07
042	GO Biological Processes	carboxylic acid biosynthetic process	CYP1A2 CYP2E1 CYP3A4 PTGS1 PTGS2 ABCB11	24.79	1E-07
043	GO Biological Processes	organic acid biosynthetic process	CYP1A2 CYP2E1 CYP3A4 PTGS1 PTGS2 ABCB11	24.51	1E-07
044	GO Biological Processes	purine nucleobase transport	SLC29A1 SLC29A2 SLC28A3	280.90	1E-07
045	GO Biological Processes	nucleobase transport	SLC29A1 SLC29A2 SLC28A3	259.29	2E-07
046	GO Biological Processes	placenta development	EGFR FGFR2 MAP2K1 PTGS2 SOD1	37.70	2E-07
047	GO Biological Processes	arachidonic acid metabolic process	CYP1A2 CYP2E1 PTGS1 PTGS2	77.49	2E-07
048	GO Biological Processes	xenobiotic export from cell	ABCC2 ABCB1 ABCB11	240.77	2E-07
049	GO Biological Processes	removal of superoxide radicals	NQO1 MPO SOD1	224.72	3E-07
050	GO Biological Processes	carboxylic acid metabolic process	CES1 CYP1A2 CYP2E1 CYP3A4 PTGS1 PTGS2 ABCB11 UGT1A1	11.35	3E-07
051	GO Biological Processes	pyrimidine-containing compound transmembrane transport	SLC29A1 SLC29A2 SLC28A3	210.67	3E-07
052	GO Biological Processes	reactive oxygen species biosynthetic process	CYP1A2 MPO SOD1	210.67	3E-07
053	GO Biological Processes	regulation of lipid metabolic process	ALK CES1 PTGS2 SOD1 ABCB11 UGT1A1	20.62	4E-07
054	GO Biological Processes	cellular response to oxygen radical	NQO1 MPO SOD1	198.28	4E-07
055	GO Biological Processes	cellular response to superoxide	NQO1 MPO SOD1	198.28	4E-07
056	GO Biological Processes	response to reactive oxygen species	BCL2 NQO1 EGFR MPO SOD1	30.87	5E-07
057	GO Biological Processes	response to superoxide	NQO1 MPO SOD1	168.54	7E-07
058	GO Biological Processes	thymine transport	SLC29A1 SLC29A2	1123.59	8E-07
059	GO Biological Processes	response to oxygen radical	NQO1 MPO SOD1	160.51	8E-07
060	GO Biological Processes	positive regulation of phosphorylation	ALK BCL2 EGFR FGFR2 MAP2K1 PTGS2 RET	12.81	8E-07
061	GO Biological Processes	vascular transport	ABCC2 SLC29A1 SLC29A2 ABCB1	52.26	1E-06
062	GO Biological Processes	transport across blood-brain barrier	ABCC2 SLC29A1 SLC29A2 ABCB1	52.26	1E-06
063	GO Biological Processes	diterpenoid metabolic process	CYP1A2 CYP3A4 EGFR UGT1A1	51.07	1E-06
064	GO Biological Processes	positive regulation of peptidyl-serine phosphorylation	BCL2 EGFR PTGS2 RET	49.94	1E-06

065	GO Biological Processes	steroid catabolic process	CYP1A2 CYP3A4 CYP19A1	134.83	1E-06
066	GO Biological Processes	molting cycle	BCL2 EGFR FGFR2 PTGS2	46.33	2E-06
067	GO Biological Processes	hair cycle	BCL2 EGFR FGFR2 PTGS2	46.33	2E-06
068	GO Biological Processes	hematopoietic or lymphoid organ development	BCL2 MAP2K1 RET SOD1	45.40	2E-06
069	GO Biological Processes	long-chain fatty acid biosynthetic process	CYP1A2 CYP2E1 CYP3A4	124.84	2E-06
070	GO Biological Processes	positive regulation of phosphorus metabolic process	ALK BCL2 EGFR FGFR2 MAP2K1 PTGS2 RET	11.35	2E-06
071	GO Biological Processes	positive regulation of phosphate metabolic process	ALK BCL2 EGFR FGFR2 MAP2K1 PTGS2 RET	11.35	2E-06
072	GO Biological Processes	unsaturated fatty acid metabolic process	CYP1A2 CYP2E1 PTGS1 PTGS2	43.22	2E-06
073	GO Biological Processes	regulation of steroid metabolic process	CES1 SOD1 ABCB1 UGT1A1	43.22	2E-06
074	GO Biological Processes	uracil transport	SLC29A1 SLC29A2	749.06	2E-06
075	GO Biological Processes	uracil transmembrane transport	SLC29A1 SLC29A2	749.06	2E-06
076	GO Biological Processes	pyrimidine nucleobase transmembrane transport	SLC29A1 SLC29A2	749.06	2E-06
077	GO Biological Processes	positive regulation of neuron maturation	BCL2 RET	749.06	2E-06
078	GO Biological Processes	steroid biosynthetic process	CES1 CYP3A4 CYP19A1 ABCB1	39.08	3E-06
079	GO Biological Processes	icosanoid metabolic process	CYP1A2 CYP2E1 PTGS1 PTGS2	38.74	3E-06
080	GO Biological Processes	response to nutrient levels	BCL2 NQO1 EGFR MPO PTGS2 UGT1A1	13.76	4E-06
081	GO Biological Processes	regulation of peptidyl-serine phosphorylation	BCL2 EGFR PTGS2 RET	36.24	4E-06
082	GO Biological Processes	guanine transport	SLC29A1 SLC29A2	561.80	5E-06
083	GO Biological Processes	cytidine transport	SLC29A1 SLC29A2	561.80	5E-06
084	GO Biological Processes	inosine transport	SLC29A1 SLC29A2	561.80	5E-06
085	GO Biological Processes	hypoxanthine transport	SLC29A1 SLC29A2	561.80	5E-06
086	GO Biological Processes	guanine transmembrane transport	SLC29A1 SLC29A2	561.80	5E-06
087	GO Biological Processes	cellular response to chemical stress	NQO1 EGFR MPO PTGS2 SOD1	19.85	5E-06
088	GO Biological Processes	regulation of kinase activity	ALK EGFR FGFR2 MAP2K1 RET SOD1	13.04	5E-06
089	GO Biological Processes	positive regulation of kinase activity	ALK EGFR FGFR2 MAP2K1 RET	19.24	5E-06
090	GO Biological Processes	digestive tract development	BCL2 EGFR FGFR2 RET	34.05	6E-06
091	GO Biological Processes	purine-containing compound transmembrane transport	SLC29A1 SLC29A2 SLC28A3	86.43	6E-06
092	GO Biological Processes	sterol metabolic process	CES1 CYP1A2 CYP3A4 CYP19A1	33.79	6E-06
093	GO Biological Processes	reproductive structure development	BCL2 CYP19A1 FGFR2 RRM1 SOD1	18.92	6E-06
094	GO Biological Processes	cellular response to reactive oxygen species	NQO1 EGFR MPO SOD1	33.29	6E-06
095	GO Biological Processes	response to glucocorticoid	BCL2 EGFR PTGS2 UGT1A1	33.05	6E-06
096	GO Biological Processes	reproductive system development	BCL2 CYP19A1 FGFR2 RRM1 SOD1	18.66	6E-06
097	GO Biological Processes	cellular response to hypoxia	BCL2 SLC29A1 FGFR2 PTGS2	32.10	7E-06
098	GO Biological Processes	adenosine transport	SLC29A1 SLC29A2	449.44	8E-06
099	GO Biological Processes	digestive system development	BCL2 EGFR FGFR2 RET	31.43	8E-06
100	GO Biological Processes	cellular response to decreased oxygen levels	BCL2 SLC29A1 FGFR2 PTGS2	30.57	9E-06
101	GO Biological Processes	superoxide metabolic process	NQO1 MPO SOD1	74.91	9E-06
102	GO Biological Processes	secondary metabolic process	BCL2 CYP1A2 CYP3A4	71.72	1E-05
103	GO Biological Processes	sensory organ development	BCL2 EGFR FGFR2 RET RRM1 SOD1	11.58	1E-05
104	GO Biological Processes	response to lipopolysaccharide	NQO1 FGFR2 MPO PTGS2 UGT1A1	16.87	1E-05
105	GO Biological Processes	porphyrin-containing compound metabolic process	ABCC2 CYP1A2 UGT1A1	70.22	1E-05
106	GO Biological Processes	epidermis development	BCL2 EGFR FGFR2 MAP2K1 SOD1	16.72	1E-05
107	GO Biological Processes	thymus development	BCL2 MAP2K1 SOD1	68.79	1E-05
108	GO Biological Processes	digestive tract morphogenesis	BCL2 EGFR FGFR2	68.79	1E-05
109	GO Biological Processes	response to corticosteroid	BCL2 EGFR PTGS2 UGT1A1	28.45	1E-05
110	GO Biological Processes	xenobiotic transport across blood-brain barrier	ABCC2 ABCB1	374.53	1E-05
111	GO Biological Processes	adenine transport	SLC29A1 SLC29A2	374.53	1E-05
112	GO Biological Processes	regulation of bile acid secretion	CES1 ABCB1	374.53	1E-05
113	GO Biological Processes	response to nutrient	NQO1 EGFR PTGS2 UGT1A1	28.09	1E-05
114	GO Biological Processes	response to metal ion	BCL2 CYP1A2 NQO1 EGFR PTGS2	16.19	1E-05
115	GO Biological Processes	cellular response to oxygen levels	BCL2 SLC29A1 FGFR2 PTGS2	27.74	1E-05
116	GO Biological Processes	lipid transport	CES1 ABCC2 ABCB1 PTGS2 ABCB1	16.14	1E-05
117	GO Biological Processes	response to molecule of bacterial origin	NQO1 FGFR2 MPO PTGS2 UGT1A1	15.87	1E-05
118	GO Biological Processes	immune system development	BCL2 MAP2K1 RET SOD1	27.07	1E-05
119	GO Biological Processes	regulation of transferase activity	ALK EGFR FGFR2 MAP2K1 RET SOD1	10.82	2E-05
120	GO Biological Processes	positive regulation of transferase activity	ALK EGFR FGFR2 MAP2K1 RET	15.43	2E-05
121	GO Biological Processes	organic hydroxy compound biosynthetic process	CES1 CYP3A4 CYP19A1 ABCB1	26.13	2E-05
122	GO Biological Processes	lipid hydroxylation	CYP2E1 CYP3A4	321.03	2E-05
123	GO Biological Processes	alkaloid metabolic process	CYP1A2 CYP3A4	321.03	2E-05
124	GO Biological Processes	mycotoxin metabolic process	CYP1A2 CYP3A4	321.03	2E-05
125	GO Biological Processes	aflatoxin metabolic process	CYP1A2 CYP3A4	321.03	2E-05
126	GO Biological Processes	organic heteropentacyclic compound metabolic process	CYP1A2 CYP3A4	321.03	2E-05
127	GO Biological Processes	tetrapyrrole metabolic process	ABCC2 CYP1A2 UGT1A1	60.19	2E-05
128	GO Biological Processes	lipid localization	CES1 ABCC2 ABCB1 PTGS2 ABCB1	14.67	2E-05
129	GO Biological Processes	regulation of neuron maturation	BCL2 RET	280.90	2E-05
130	GO Biological Processes	cellular response to metal ion	CYP1A2 NQO1 EGFR PTGS2	23.91	2E-05
131	GO Biological Processes	lung development	CYP1A2 EGFR FGFR2 MAP2K1	23.53	2E-05
132	GO Biological Processes	respiratory tube development	CYP1A2 EGFR FGFR2 MAP2K1	23.05	3E-05
133	GO Biological Processes	peptidyl-tyrosine phosphorylation	ALK EGFR FGFR2	51.86	3E-05
134	GO Biological Processes	pigment metabolic process	BCL2 ABCC2 UGT1A1	51.86	3E-05
135	GO Biological Processes	cyclooxygenase pathway	PTGS1 PTGS2	249.69	3E-05
136	GO Biological Processes	positive regulation of cell maturation	BCL2 RET	249.69	3E-05
137	GO Biological Processes	peptidyl-tyrosine modification	ALK EGFR FGFR2	50.31	3E-05
138	GO Biological Processes	response to bacterium	CYP2E1 NQO1 FGFR2 MPO PTGS2 UGT1A1	9.46	3E-05
139	GO Biological Processes	hormone metabolic process	CYP1A2 CYP3A4 CYP19A1 UGT1A1	21.82	3E-05
140	GO Biological Processes	cell surface receptor protein tyrosine kinase signaling pathway	ALK EGFR FGFR2 MAP2K1 RET	13.28	3E-05
141	GO Biological Processes	cell population proliferation	BCL2 EGFR FGFR2 ABCB1 MAP2K1 RRM1	9.38	3E-05
142	GO Biological Processes	oxidative demethylation	CYP1A2 CYP3A4	224.72	3E-05
143	GO Biological Processes	hydrogen peroxide biosynthetic process	CYP1A2 SOD1	224.72	3E-05
144	GO Biological Processes	brain development	ALK BCL2 EGFR FGFR2 MAP2K1 RRM1	9.22	4E-05
145	GO Biological Processes	respiratory system development	CYP1A2 EGFR FGFR2 MAP2K1	20.62	4E-05
146	GO Biological Processes	prostate gland growth	CYP19A1 FGFR2	204.29	4E-05
147	GO Biological Processes	cellular response to oxidative stress	NQO1 EGFR MPO SOD1	19.89	5E-05
148	GO Biological Processes	gonad development	BCL2 CYP19A1 RRM1 SOD1	19.80	5E-05
149	GO Biological Processes	midgut development	EGFR RET	187.27	5E-05
150	GO Biological Processes	development of primary sexual characteristics	BCL2 CYP19A1 RRM1 SOD1	19.37	5E-05
151	GO Biological Processes	hair follicle development	BCL2 EGFR FGFR2	41.61	5E-05
152	GO Biological Processes	positive regulation of MAPK cascade	EGFR FGFR2 MAP2K1 RET SOD1	12.03	5E-05
153	GO Biological Processes	head development	ALK BCL2 EGFR FGFR2 MAP2K1 RRM1	8.63	5E-05

154	GO Biological Processes	retinoid metabolic process	CYP1A2 CYP3A4 UGT1A1	40.61	6E-05
155	GO Biological Processes	cellular catabolic process	BCL2 CYP1A2 CYP3A4 MPONR1I2 UGT1A1	8.53	6E-05
156	GO Biological Processes	response to hormone	BCL2 NQO1 EGFR PTGS2 ABCB1 UGT1A1	8.48	6E-05
157	GO Biological Processes	negative regulation of smooth muscle contraction	PTGS2 SOD1	172.86	6E-05
158	GO Biological Processes	porphyrin-containing compound catabolic process	ABCC2 UGT1A1	172.86	6E-05
159	GO Biological Processes	tetrapyrrole catabolic process	ABCC2 UGT1A1	172.86	6E-05
160	GO Biological Processes	molting cycle process	BCL2 EGFR FGFR2	39.66	6E-05
161	GO Biological Processes	hair cycle process	BCL2 EGFR FGFR2	39.66	6E-05
162	GO Biological Processes	embryonic placenta development	EGFR FGFR2 MAP2K1	39.20	6E-05
163	GO Biological Processes	protein phosphorylation	ALK EGFR FGFR2 RET TOP1	11.49	6E-05
164	GO Biological Processes	ureteric bud development	BCL2 FGFR2 RET	38.30	7E-05
165	GO Biological Processes	carbohydrate derivative transport	SLC29A1 SLC29A2 SLC28A3	37.87	7E-05
166	GO Biological Processes	post-embryonic development	BCL2 CYP1A2 FGFR2	37.87	7E-05
167	GO Biological Processes	mesonephric epithelium development	BCL2 FGFR2 RET	37.87	7E-05
168	GO Biological Processes	mesonephric tubule development	BCL2 FGFR2 RET	37.87	7E-05
169	GO Biological Processes	peptidyl-tyrosine autophosphorylation	ALK EGFR	160.51	7E-05
170	GO Biological Processes	deoxyribonucleotide biosynthetic process	DKK1 RRM1	160.51	7E-05
171	GO Biological Processes	2'-deoxyribonucleotide biosynthetic process	DKK1 RRM1	160.51	7E-05
172	GO Biological Processes	deoxyribose phosphate biosynthetic process	DKK1 RRM1	160.51	7E-05
173	GO Biological Processes	female gonad development	BCL2 CYP19A1 SOD1	36.24	8E-05
174	GO Biological Processes	mesonephros development	BCL2 FGFR2 RET	36.24	8E-05
175	GO Biological Processes	toxin metabolic process	CYP1A2 CYP3A4	149.81	8E-05
176	GO Biological Processes	regulation of bile acid metabolic process	CES1 ABCB11	149.81	8E-05
177	GO Biological Processes	development of primary female sexual characteristics	BCL2 CYP19A1 SOD1	34.75	9E-05
178	GO Biological Processes	response to hydrogen peroxide	BCL2 NQO1 SOD1	34.40	9E-05
179	GO Biological Processes	regulation of response to osmotic stress	ABCB1 PTGS2	140.45	9E-05
180	GO Biological Processes	positive regulation of smooth muscle cell proliferation	EGFR FGFR2 PTGS2	33.71	1E-04
181	GO Biological Processes	cellular response to lipid	CES1 EGFR FGFR2 RET UGT1A1	10.48	1E-04
182	GO Biological Processes	regulation of hormone levels	CYP1A2 CYP3A4 CYP19A1 EGFR UGT1A1	10.38	0.0001
183	GO Biological Processes	skin development	BCL2 EGFR FGFR2 MAP2K1	15.94	0.0001
184	GO Biological Processes	phosphorylation	ALK EGFR FGFR2 RET TOP1	10.27	0.0001
185	GO Biological Processes	sex differentiation	BCL2 CYP19A1 RRM1 SOD1	15.88	0.0001
186	GO Biological Processes	gland morphogenesis	BCL2 EGFR FGFR2	32.10	0.0001
187	GO Biological Processes	positive regulation of apoptotic process	BCL2 NQO1 PTGS2 RET SOD1	10.18	0.0001
188	GO Biological Processes	response to steroid hormone	BCL2 EGFR PTGS2 UGT1A1	15.71	0.0001
189	GO Biological Processes	epoxygenase P450 pathway	CYP1A2 CYP2E1	124.84	0.0001
190	GO Biological Processes	positive regulation of superoxide anion generation	EGFR SOD1	124.84	0.0001
191	GO Biological Processes	morphogenesis of an epithelial fold	EGFR FGFR2	124.84	0.0001
192	GO Biological Processes	organ growth	BCL2 CYP19A1 FGFR2	31.50	0.0001
193	GO Biological Processes	ossification	BCL2 EGFR FGFR2 PTGS2	15.55	0.0001
194	GO Biological Processes	positive regulation of protein phosphorylation	BCL2 EGFR MAP2K1 PTGS2 RET	9.87	0.0001
195	GO Biological Processes	positive regulation of programmed cell death	BCL2 NQO1 PTGS2 RET SOD1	9.84	0.0001
196	GO Biological Processes	carboxylic acid transport	ABCC2 ABCB1 PTGS2 ABCB11	15.08	0.0001
197	GO Biological Processes	female sex differentiation	BCL2 CYP19A1 SOD1	30.10	0.0001
198	GO Biological Processes	negative regulation of lipid metabolic process	ALK SOD1 UGT1A1	30.10	0.0001
199	GO Biological Processes	organic acid transport	ABCC2 ABCB1 PTGS2 ABCB11	15.03	0.0001
200	GO Biological Processes	lipid catabolic process	CES1 CYP1A2 CYP3A4 CYP19A1	14.98	0.0001
201	GO Biological Processes	response to hypoxia	BCL2 SLC29A1 FGFR2 PTGS2	14.88	0.0001
202	GO Biological Processes	demethylation	CYP1A2 CYP3A4	112.36	0.0001
203	GO Biological Processes	regulation of superoxide anion generation	EGFR SOD1	112.36	0.0001
204	GO Biological Processes	skin epidermis development	BCL2 EGFR FGFR2	28.81	0.0002
205	GO Biological Processes	prostaglandin biosynthetic process	PTGS1 PTGS2	107.01	0.0002
206	GO Biological Processes	prostanoid biosynthetic process	PTGS1 PTGS2	107.01	0.0002
207	GO Biological Processes	cholesterol metabolic process	CES1 CYP1A2 CYP3A4	28.33	0.0002
208	GO Biological Processes	response to decreased oxygen levels	BCL2 SLC29A1 FGFR2 PTGS2	14.22	0.0002
209	GO Biological Processes	programmed cell death involved in cell development	BCL2 SOD1	102.14	0.0002
210	GO Biological Processes	negative regulation of muscle contraction	PTGS2 SOD1	97.70	0.0002
211	GO Biological Processes	ERBB2 signaling pathway	EGFR MAP2K1	97.70	0.0002
212	GO Biological Processes	behavior	ALK BCL2 EGFR PTGS2 SOD1	9.09	0.0002
213	GO Biological Processes	enzyme-linked receptor protein signaling pathway	ALK EGFR FGFR2 MAP2K1 RET	9.09	0.0002
214	GO Biological Processes	mammary gland development	CYP19A1 SLC29A1 FGFR2	26.54	0.0002
215	GO Biological Processes	glial cell development	EGFR MAP2K1 SOD1	26.33	0.0002
216	GO Biological Processes	response to amino acid	NQO1 EGFR PTGS2	26.33	0.0002
217	GO Biological Processes	regulation of small molecule metabolic process	CES1 PTGS2 SOD1 ABCB11	13.54	0.0002
218	GO Biological Processes	regulation of cell maturation	BCL2 RET	93.63	0.0002
219	GO Biological Processes	secondary alcohol metabolic process	CES1 CYP1A2 CYP3A4	25.93	0.0002
220	GO Biological Processes	response to oxygen levels	BCL2 SLC29A1 FGFR2 PTGS2	13.14	0.0002
221	GO Biological Processes	benzene-containing compound metabolic process	CYP2E1 UGT1A1	86.43	0.0002
222	GO Biological Processes	regulation of MAPK cascade	EGFR FGFR2 MAP2K1 RET SOD1	8.50	0.0003
223	GO Biological Processes	cell proliferation in forebrain	FGFR2 RRM1	83.23	0.0003
224	GO Biological Processes	negative regulation of catabolic process	ALK BCL2 NQO1 EGFR	12.62	0.0003
225	GO Biological Processes	kidney epithelium development	BCL2 FGFR2 RET	23.91	0.0003
226	GO Biological Processes	response to acid chemical	NQO1 EGFR PTGS2	23.57	0.0003
227	GO Biological Processes	regulation of cellular ketone metabolic process	CES1 PTGS2 ABCB11	23.57	0.0003
228	GO Biological Processes	androgen metabolic process	CYP3A4 CYP19A1	77.49	0.0003
229	GO Biological Processes	regulation of superoxide metabolic process	EGFR SOD1	77.49	0.0003
230	GO Biological Processes	salivary gland morphogenesis	EGFR FGFR2	77.49	0.0003
231	GO Biological Processes	regulation of reactive oxygen species metabolic process	BCL2 EGFR SOD1	22.78	0.0003
232	GO Biological Processes	cell morphogenesis	BCL2 EGFR FGFR2 RET SOD1	8.18	0.0003
233	GO Biological Processes	tube morphogenesis	BCL2 EGFR FGFR2 PTGS2 RET	8.17	0.0003
234	GO Biological Processes	bile acid and bile salt transport	ABCC2 ABCB11	74.91	0.0003
235	GO Biological Processes	neurotransmitter uptake	SLC29A1 SLC29A2	74.91	0.0003
236	GO Biological Processes	neuron projection development	BCL2 EGFR FGFR2 RET SOD1	8.10	0.0003
237	GO Biological Processes	regulation of tube diameter	EGFR PTGS2 SOD1	22.03	0.0003
238	GO Biological Processes	blood vessel diameter maintenance	EGFR PTGS2 SOD1	22.03	0.0003
239	GO Biological Processes	regulation of tube size	EGFR PTGS2 SOD1	21.89	0.0003
240	GO Biological Processes	eye development	BCL2 EGFR RET RRM1	11.77	0.0003
241	GO Biological Processes	retinoic acid metabolic process	CYP3A4 UGT1A1	72.49	0.0003
242	GO Biological Processes	regulation of osteoblast proliferation	BCL2 FGFR2	72.49	0.0003

243	GO Biological Processes	monocarboxylic acid transport	ABCC2 PTGS2 ABCB11	21.75	0.0003
244	GO Biological Processes	protein autophosphorylation	ALK EGFR FGFR2	21.75	0.0003
245	GO Biological Processes	visual system development	BCL2 EGFR RET RRM1	11.64	0.0004
246	GO Biological Processes	transepithelial transport	ABCC2 ABCB1	70.22	0.0004
247	GO Biological Processes	salivary gland development	EGFR FGFR2	70.22	0.0004
248	GO Biological Processes	sensory system development	BCL2 EGFR RET RRM1	11.47	0.0004
249	GO Biological Processes	regulation of apoptotic signaling pathway	BCL2 PTGS2 RET SOD1	11.35	0.0004
250	GO Biological Processes	positive regulation of vasoconstriction	EGFR PTGS2	68.10	0.0004
251	GO Biological Processes	hair follicle morphogenesis	BCL2 FGFR2	68.10	0.0004
252	GO Biological Processes	regeneration	BCL2 EGFR UGT1A1	20.81	0.0004
253	GO Biological Processes	organic anion transport	ABCC2 ABCB1 PTGS2 ABCB11	11.24	0.0004
254	GO Biological Processes	negative regulation of steroid metabolic process	SOD1 UGT1A1	66.09	0.0004
255	GO Biological Processes	organic hydroxy compound transport	CES1 ABCC2 ABCB11	20.18	0.0004
256	GO Biological Processes	forebrain development	ALK EGFR FGFR2 RRM1	10.99	0.0004
257	GO Biological Processes	positive regulation of synaptic transmission, glutamatergic	EGFR PTGS2	62.42	0.0005
258	GO Biological Processes	female pregnancy	BCL2 PTGS2 SOD1	19.48	0.0005
259	GO Biological Processes	regulation of smooth muscle cell proliferation	EGFR FGFR2 PTGS2	19.48	0.0005
260	GO Biological Processes	positive regulation of protein modification process	BCL2 EGFR MAP2K1 PTGS2 RET	7.44	0.0005
261	GO Biological Processes	blood circulation	EGFR PTGS1 PTGS2 SOD1	10.73	0.0005
262	GO Biological Processes	epithelial cell proliferation	EGFR FGFR2 MAP2K1	19.37	0.0005
263	GO Biological Processes	mesenchymal cell differentiation	BCL2 FGFR2 RET	19.37	0.0005
264	GO Biological Processes	epidermis morphogenesis	BCL2 FGFR2	60.73	0.0005
265	GO Biological Processes	cellular response to cadmium ion	CYP1A2 EGFR	59.14	0.0005
266	GO Biological Processes	cellular response to estradiol stimulus	EGFR UGT1A1	59.14	0.0005
267	GO Biological Processes	animal organ formation	FGFR2 MAP2K1	57.62	0.0006
268	GO Biological Processes	unsaturated fatty acid biosynthetic process	PTGS1 PTGS2	57.62	0.0006
269	GO Biological Processes	stem cell differentiation	BCL2 FGFR2 RET	18.42	0.0006
270	GO Biological Processes	prostaglandin metabolic process	PTGS1 PTGS2	56.18	0.0006
271	GO Biological Processes	response to carbohydrate	NQO1 SLC29A1 PTGS2	18.22	0.0006
272	GO Biological Processes	cell morphogenesis involved in neuron differentiation	BCL2 FGFR2 RET SOD1	10.15	0.0006
273	GO Biological Processes	regulation of blood pressure	PTGS1 PTGS2 SOD1	18.03	0.0006
274	GO Biological Processes	regulation of G1/S transition of mitotic cell cycle	BCL2 EGFR RRM1	18.03	0.0006
275	GO Biological Processes	prostanoid metabolic process	PTGS1 PTGS2	54.81	0.0006
276	GO Biological Processes	regulation of cholesterol metabolic process	CES1 SOD1	54.81	0.0006
277	GO Biological Processes	2'-deoxyribonucleotide metabolic process	DCR RRM1	54.81	0.0006
278	GO Biological Processes	fat-soluble vitamin metabolic process	CYP3A4 NQO1	54.81	0.0006
279	GO Biological Processes	regulation of lipid biosynthetic process	CES1 PTGS2 SOD1	17.93	0.0006
280	GO Biological Processes	regulation of intrinsic apoptotic signaling pathway	BCL2 PTGS2 SOD1	17.83	0.0006
281	GO Biological Processes	Schwann cell development	MAP2K1 SOD1	53.50	0.0006
282	GO Biological Processes	neuron maturation	BCL2 RET	53.50	0.0006
283	GO Biological Processes	deoxyribonucleotide metabolic process	DCR RRM1	53.50	0.0006
284	GO Biological Processes	deoxyribose phosphate metabolic process	DCR RRM1	53.50	0.0006
285	GO Biological Processes	embryonic organ development	EGFR FGFR2 MAP2K1 SOD1	9.94	0.0007
286	GO Biological Processes	regulation of neuron differentiation	ALK BCL2 RET	17.56	0.0007
287	GO Biological Processes	multi-organism reproductive process	BCL2 PTGS2 SOD1	17.38	0.0007
288	GO Biological Processes	positive regulation of ERK1 and ERK2 cascade	EGFR FGFR2 MAP2K1	17.38	0.0007
289	GO Biological Processes	morphogenesis of an epithelium	BCL2 EGFR FGFR2 RET	9.81	0.0007
290	GO Biological Processes	positive regulation of cell development	BCL2 EGFR MAP2K1 RET	9.79	0.0007
291	GO Biological Processes	exocrine system development	EGFR FGFR2	51.07	0.0007
292	GO Biological Processes	cellular response to organic cyclic compound	CES1 EGFR PTGS2 UGT1A1	9.62	0.0007
293	GO Biological Processes	embryo implantation	PTGS2 SOD1	49.94	0.0007
294	GO Biological Processes	multi-multicellular organism process	BCL2 PTGS2 SOD1	16.69	0.0008
295	GO Biological Processes	prostate gland development	CYP19A1 FGFR2	48.85	0.0008
296	GO Biological Processes	regulation of extrinsic apoptotic signaling pathway in absence of	BCL2 RET	48.85	0.0008
297	GO Biological Processes	Schwann cell differentiation	MAP2K1 SOD1	47.81	0.0008
298	GO Biological Processes	labyrinthine layer development	FGFR2 MAP2K1	47.81	0.0008
299	GO Biological Processes	icosanoid transport	ABCC2 PTGS2	47.81	0.0008
300	GO Biological Processes	neuron projection morphogenesis	BCL2 EGFR FGFR2 RET	9.25	0.0009
301	GO Biological Processes	export from cell	ABCC2 ABCB1 PTGS2 ABCB11	9.21	0.0009
302	GO Biological Processes	lung morphogenesis	FGFR2 MAP2K1	45.86	0.0009
303	GO Biological Processes	regulation of cell cycle G1/S phase transition	BCL2 EGFR RRM1	15.83	0.0009
304	GO Biological Processes	plasma membrane bounded cell projection morphogenesis	BCL2 EGFR FGFR2 RET	9.15	0.0009
305	GO Biological Processes	vasodilation	EGFR SOD1	44.94	0.0009
306	GO Biological Processes	icosanoid biosynthetic process	PTGS1 PTGS2	44.94	0.0009
307	GO Biological Processes	cell projection morphogenesis	BCL2 EGFR FGFR2 RET	9.06	0.0009
308	GO Biological Processes	MAPK cascade	EGFR MAP2K1 RET	15.46	0.0009
309	GO Biological Processes	regulation of anatomical structure size	EGFR PTGS2 RET SOD1	8.97	0.001
310	GO Biological Processes	glial cell differentiation	EGFR MAP2K1 SOD1	15.39	0.001
311	GO Biological Processes	response to mechanical stimulus	EGFR MPO PTGS2	15.32	0.001
312	GO Biological Processes	retinol metabolic process	CYP1A2 CYP3A4	43.22	0.001
313	GO Biological Processes	tissue homeostasis	BCL2 PTGS2 SOD1	15.18	0.001
314	GO Biological Processes	ear development	BCL2 FGFR2 SOD1	15.18	0.001
315	GO Biological Processes	anatomical structure homeostasis	BCL2 PTGS2 SOD1	15.18	0.001
316	GO Biological Processes	ovarian follicle development	BCL2 SOD1	42.40	0.001
317	GO Biological Processes	nucleobase-containing compound transport	SLC29A1 SLC29A2 SLC28A3	14.98	0.001
318	GO Biological Processes	peptidyl-amino acid modification	ALK EGFR FGFR2 TOP1	8.71	0.0011
319	GO Biological Processes	cellular response to glucocorticoid stimulus	EGFR UGT1A1	40.86	0.0011
320	GO Biological Processes	response to axon injury	BCL2 SOD1	40.13	0.0011
321	GO Biological Processes	regulation of cellular response to stress	BCL2 EGFR MAP2K1 PTGS2	8.54	0.0011
322	GO Biological Processes	positive regulation of G1/S transition of mitotic cell cycle	EGFR RRM1	39.42	0.0012
323	GO Biological Processes	regulation of neuron apoptotic process	BCL2 NQO1 SOD1	13.76	0.0013
324	GO Biological Processes	mesenchyme development	BCL2 FGFR2 RET	13.65	0.0013
325	GO Biological Processes	regulation of smooth muscle contraction	PTGS2 SOD1	36.84	0.0014
326	GO Biological Processes	response to cadmium ion	CYP1A2 EGFR	36.84	0.0014
327	GO Biological Processes	bone mineralization	FGFR2 PTGS2	36.84	0.0014
328	GO Biological Processes	urogenital system development	CYP19A1 FGFR2	35.67	0.0014
329	GO Biological Processes	positive regulation of growth	BCL2 EGFR FGFR2	13.07	0.0015
330	GO Biological Processes	regulation of multicellular organism growth	BCL2 SOD1	34.57	0.0015
331	GO Biological Processes	ERBB signaling pathway	EGFR MAP2K1	34.57	0.0015

332	GO Biological Processes	cellular response to corticosteroid stimulus	EGFR UGT1A1	34.57	0.0015
333	GO Biological Processes	regulation of system process	CYP19A1 EGFR PTGS2 SOD1	7.87	0.0015
334	GO Biological Processes	tissue morphogenesis	BCL2 EGFR FGFR2 RET	7.86	0.0016
335	GO Biological Processes	astrocyte differentiation	EGFR MAP2K1	34.05	0.0016
336	GO Biological Processes	response to ischemia	BCL2 NQO1	34.05	0.0016
337	GO Biological Processes	regulation of lipid catabolic process	ALK ABCB11	34.05	0.0016
338	GO Biological Processes	animal organ regeneration	EGFR UGT1A1	33.54	0.0016
339	GO Biological Processes	cellular response to retinoic acid	FGFR2 RET	33.54	0.0016
340	GO Biological Processes	regulation of vasoconstriction	EGFR PTGS2	33.05	0.0017
341	GO Biological Processes	embryonic morphogenesis	FGFR2 MAP2K1 RET SOD1	7.63	0.0017
342	GO Biological Processes	positive regulation of reactive oxygen species metabolic process	EGFR SOD1	32.10	0.0018
343	GO Biological Processes	positive regulation of cell cycle G1/S phase transition	EGFR RRM1	32.10	0.0018
344	GO Biological Processes	positive regulation of cell migration	BCL2 EGFR PTGS2 RET	7.55	0.0018
345	GO Biological Processes	negative regulation of calcium ion transport	BCL2 PTGS2	31.65	0.0018
346	GO Biological Processes	sensory organ morphogenesis	BCL2 FGFR2 SOD1	12.21	0.0019
347	GO Biological Processes	gliogenesis	EGFR MAP2K1 SOD1	12.21	0.0019
348	GO Biological Processes	regulation of mitochondrial membrane potential	BCL2 SOD1	30.78	0.0019
349	GO Biological Processes	regulation of growth	BCL2 EGFR FGFR2 SOD1	7.40	0.0019
350	GO Biological Processes	regulation of secretion	CES1 CYP19A1 EGFR ABCB11	7.40	0.0019
351	GO Biological Processes	cellular response to mechanical stimulus	EGFR PTGS2	30.37	0.002
352	GO Biological Processes	cellular response to external stimulus	EGFR PTGS2	29.96	0.002
353	GO Biological Processes	multicellular organismal-level homeostasis	ALK BCL2 PTGS2 SOD1	7.30	0.002
354	GO Biological Processes	regulation of ERK1 and ERK2 cascade	EGFR FGFR2 MAP2K1	11.70	0.0021
355	GO Biological Processes	positive regulation of cell motility	BCL2 EGFR PTGS2 RET	7.21	0.0021
356	GO Biological Processes	regulation of synaptic transmission, glutamatergic	EGFR PTGS2	29.18	0.0021
357	GO Biological Processes	regulation of organic acid transport	CES1 ABCB11	28.81	0.0022
358	GO Biological Processes	epithelial cell differentiation	CES1 FGFR2 MAP2K1 SOD1	7.12	0.0022
359	GO Biological Processes	positive regulation of locomotion	BCL2 EGFR PTGS2 RET	7.06	0.0023
360	GO Biological Processes	regulation of steroid biosynthetic process	CES1 SOD1	27.74	0.0024
361	GO Biological Processes	kidney development	BCL2 FGFR2 RET	11.09	0.0024
362	GO Biological Processes	peripheral nervous system development	MAP2K1 SOD1	26.75	0.0025
363	GO Biological Processes	response to vitamin	EGFR PTGS2	26.75	0.0025
364	GO Biological Processes	stem cell development	BCL2 RET	26.75	0.0025
365	GO Biological Processes	cellular ketone metabolic process	CYP19A1 NQO1	26.75	0.0025
366	GO Biological Processes	metanephros development	BCL2 RET	26.44	0.0026
367	GO Biological Processes	pyrimidine-containing compound metabolic process	DKC1 RRM1	26.44	0.0026
368	GO Biological Processes	positive regulation of secretion	CYP19A1 EGFR ABCB11	10.77	0.0026
369	GO Biological Processes	positive regulation of lipid transport	CES1 CYP19A1	26.13	0.0027
370	GO Biological Processes	epithelial tube morphogenesis	BCL2 FGFR2 RET	10.73	0.0027
371	GO Biological Processes	renal system development	BCL2 FGFR2 RET	10.73	0.0027
372	GO Biological Processes	regulation of developmental growth	BCL2 FGFR2 SOD1	10.60	0.0028
373	GO Biological Processes	multicellular organismal response to stress	BCL2 RET	25.54	0.0028
374	GO Biological Processes	cellular response to amino acid stimulus	EGFR PTGS2	24.97	0.0029
375	GO Biological Processes	alcohol metabolic process	CES1 CYP1A2 CYP3A4	10.37	0.0029
376	GO Biological Processes	primary alcohol metabolic process	CYP1A2 CYP3A4	24.69	0.003
377	GO Biological Processes	phenol-containing compound metabolic process	BCL2 CYP2E1	24.43	0.003
378	GO Biological Processes	cellular homeostasis	BCL2 NQO1 SLC29A1 SOD1	6.50	0.0031
379	GO Biological Processes	alcohol biosynthetic process	CES1 CYP3A4	24.16	0.0031
380	GO Biological Processes	response to heat	PTGS2 SOD1	23.91	0.0032
381	GO Biological Processes	camera-type eye development	EGFR RET RRM1	10.03	0.0032
382	GO Biological Processes	positive regulation of cell cycle	EGFR FGFR2 RRM1	9.97	0.0033
383	GO Biological Processes	cellular response to acid chemical	EGFR PTGS2	22.70	0.0035
384	GO Biological Processes	regulation of fatty acid metabolic process	PTGS2 ABCB11	22.70	0.0035
385	GO Biological Processes	regulation of organ growth	FGFR2 SOD1	22.03	0.0037
386	GO Biological Processes	positive regulation of mitotic cell cycle phase transition	EGFR RRM1	22.03	0.0037
387	GO Biological Processes	cholesterol homeostasis	CES1 ABCB11	22.03	0.0037
388	GO Biological Processes	sterol homeostasis	CES1 ABCB11	21.82	0.0038
389	GO Biological Processes	vitamin metabolic process	CYP3A4 NQO1	21.82	0.0038
390	GO Biological Processes	neural precursor cell proliferation	FGFR2 RRM1	21.61	0.0039
391	GO Biological Processes	inner ear morphogenesis	FGFR2 SOD1	21.40	0.0039
392	GO Biological Processes	biomineral tissue development	FGFR2 PTGS2	21.40	0.0039
393	GO Biological Processes	positive regulation of cell projection organization	ALK MAP2K1 RET	9.34	0.004
394	GO Biological Processes	regulation of mitotic cell cycle phase transition	BCL2 EGFR RRM1	9.34	0.004
395	GO Biological Processes	cellular response to alcohol	CES1 UGT1A1	21.20	0.004
396	GO Biological Processes	response to retinoic acid	FGFR2 RET	21.20	0.004
397	GO Biological Processes	axonogenesis	BCL2 FGFR2 RET	9.21	0.0041
398	GO Biological Processes	membrane organization	BCL2 EGFR ABCB1 SOD1	5.98	0.0042
399	GO Biological Processes	positive regulation of lipid localization	CES1 CYP19A1	20.24	0.0044
400	GO Biological Processes	negative regulation of intrinsic apoptotic signaling pathway	BCL2 PTGS2	19.89	0.0045
401	GO Biological Processes	positive regulation of canonical Wnt signaling pathway	EGFR FGFR2	19.89	0.0045
402	GO Biological Processes	negative regulation of cell cycle	BCL2 EGFR PTGS2	8.78	0.0047
403	GO Biological Processes	metencephalon development	BCL2 MAP2K1	19.21	0.0049
404	GO Biological Processes	negative regulation of protein catabolic process	NQO1 EGFR	19.21	0.0049
405	GO Biological Processes	negative regulation of cell population proliferation	BCL2 FGFR2 MAP2K1 PTGS2	5.68	0.005
406	GO Biological Processes	in utero embryonic development	EGFR FGFR2 MAP2K1	8.56	0.005
407	GO Biological Processes	positive regulation of cell cycle phase transition	EGFR RRM1	18.73	0.0051
408	GO Biological Processes	formation of primary germ layer	FGFR2 MAP2K1	18.27	0.0054
409	GO Biological Processes	positive regulation of protein serine/threonine kinase activity	EGFR MAP2K1	18.12	0.0054
410	GO Biological Processes	positive regulation of lipid metabolic process	CES1 PTGS2	18.12	0.0054
411	GO Biological Processes	ear morphogenesis	FGFR2 SOD1	17.83	0.0056
412	GO Biological Processes	limbic system development	ALK FGFR2	17.83	0.0056
413	GO Biological Processes	myelination	MAP2K1 SOD1	17.56	0.0058
414	GO Biological Processes	ensheathment of neurons	MAP2K1 SOD1	17.29	0.006
415	GO Biological Processes	axon ensheathment	MAP2K1 SOD1	17.29	0.006
416	GO Biological Processes	epithelial tube formation	FGFR2 RET	17.29	0.006
417	GO Biological Processes	axon development	BCL2 FGFR2 RET	8.01	0.0061
418	GO Biological Processes	negative regulation of monoatomic ion transport	BCL2 PTGS2	16.90	0.0062
419	GO Biological Processes	liver development	EGFR UGT1A1	16.90	0.0062
420	GO Biological Processes	positive regulation of mitotic cell cycle	EGFR RRM1	16.90	0.0062

421	GO Biological Processes	response to radiation	BCL2 EGFR RRM1	7.91	0.0063
422	GO Biological Processes	growth	BCL2 CYP19A1 FGFR2	7.82	0.0065
423	GO Biological Processes	developmental growth	BCL2 CYP19A1 FGFR2	7.82	0.0065
424	GO Biological Processes	hepaticobiliary system development	EGFR UGT1A1	16.52	0.0065
425	GO Biological Processes	regulation of inflammatory response	CYP19A1 PTGS2 SOD1	7.78	0.0065
426	GO Biological Processes	circadian rhythm	EGFR TOP1	16.28	0.0067
427	GO Biological Processes	branching morphogenesis of an epithelial tube	BCL2 FGFR2	16.28	0.0067
428	GO Biological Processes	neurotransmitter transport	SLC29A1 SLC29A2	16.05	0.0069
429	GO Biological Processes	response to ionizing radiation	BCL2 RRM1	16.05	0.0069
430	GO Biological Processes	regulation of axonogenesis	MAP2K1 RET	15.94	0.007
431	GO Biological Processes	regulation of neuron projection development	ALK MAP2K1 RET	7.57	0.0071
432	GO Biological Processes	positive regulation of apoptotic signaling pathway	RETSOD1	15.71	0.0072
433	GO Biological Processes	positive regulation of hormone secretion	CYP19A1 EGFR	15.61	0.0073
434	GO Biological Processes	morphogenesis of embryonic epithelium	FGFR2 RET	15.61	0.0073
435	GO Biological Processes	positive regulation of small molecule metabolic process	CES1 PTGS2	15.61	0.0073
436	GO Biological Processes	tube formation	FGFR2 RET	15.50	0.0074
437	GO Biological Processes	mitotic cell cycle phase transition	BCL2 ABCB1	15.39	0.0075
438	GO Biological Processes	regulation of protein kinase activity	EGFR MAP2K1 SOD1	7.41	0.0075
439	GO Biological Processes	male gonad development	BCL2 RRM1	15.29	0.0076
440	GO Biological Processes	development of primary male sexual characteristics	BCL2 RRM1	15.18	0.0077
441	GO Biological Processes	regulation of cell cycle phase transition	BCL2 EGFR RRM1	7.33	0.0077
442	GO Biological Processes	positive regulation of Wnt signaling pathway	EGFR FGFR2	15.08	0.0078
443	GO Biological Processes	regulation of membrane potential	BCL2 SLC29A1 SOD1	7.25	0.008
444	GO Biological Processes	regulation of monoatomic ion transport	BCL2 ABCB1 PTGS2	7.19	0.0082
445	GO Biological Processes	regulation of lipid transport	CYP19A1	14.69	0.0082
446	GO Biological Processes	cellular response to steroid hormone stimulus	EGFR UGT1A1	14.59	0.0083
447	GO Biological Processes	response to hexose	SLC29A1 PTGS2	14.59	0.0083
448	GO Biological Processes	response to UV	BCL2 EGFR	14.50	0.0084
449	GO Biological Processes	retina development in camera-type eye	RET RRM1	14.41	0.0085
450	GO Biological Processes	regulation of extrinsic apoptotic signaling pathway	BCL2 RET	14.31	0.0086
451	GO Biological Processes	hindbrain development	BCL2 MAP2K1	14.22	0.0087
452	GO Biological Processes	positive regulation of synaptic transmission	EGFR PTGS2	14.13	0.0088
453	GO Biological Processes	cell cycle phase transition	BCL2 ABCB1	14.13	0.0088
454	GO Biological Processes	response to monosaccharide	SLC29A1 PTGS2	13.96	0.009
455	GO Biological Processes	positive regulation of neuron projection development	ALK RET	13.87	0.0091
456	GO Biological Processes	positive regulation of cell growth	BCL2 EGFR	13.87	0.0091
457	GO Biological Processes	response to temperature stimulus	PTGS2 SOD1	13.79	0.0092
458	GO Biological Processes	negative regulation of neuron apoptotic process	BCL2 SOD1	13.70	0.0093
459	GO Biological Processes	regulation of muscle cell differentiation	BCL2 FGFR2	13.54	0.0095
460	GO Biological Processes	lipid modification	CYP2E1 CYP3A4	13.46	0.0097
461	GO Biological Processes	morphogenesis of a branching epithelium	BCL2 FGFR2	13.46	0.0097
462	GO Biological Processes	positive regulation of developmental growth	BCL2 FGFR2	13.30	0.0099
463	GO Biological Processes	male sex differentiation	BCL2 RRM1	13.14	0.0101
464	GO Biological Processes	regulation of muscle contraction	PTGS2 SOD1	13.07	0.0102
465	GO Biological Processes	gastrulation	FGFR2 MAP2K1	12.99	0.0103
466	GO Biological Processes	morphogenesis of a branching structure	BCL2 FGFR2	12.62	0.0109
467	GO Biological Processes	nucleotide metabolic process	DCNK NQO1 RRM1	6.42	0.0111
468	GO Biological Processes	lipid homeostasis	CES1 ABCB1	12.48	0.0111
469	GO Biological Processes	regulation of mitotic cell cycle	BCL2 EGFR RRM1	6.38	0.0112
470	GO Biological Processes	blood vessel development	FGFR2 MAP2K1 PTGS2	6.32	0.0115
471	GO Biological Processes	nucleoside phosphate metabolic process	DCNK NQO1 RRM1	6.32	0.0115
472	GO Biological Processes	regulation of lipid localization	CES1 CYP19A1	12.21	0.0116
473	GO Biological Processes	positive regulation of phosphatidylinositol 3-kinase/protein kinase	EGFR RET	12.02	0.012
474	GO Biological Processes	cell maturation	BCL2 RET	12.02	0.012
475	GO Biological Processes	secretion	SLC29A1 PTGS2 ABCB1	6.20	0.0122
476	GO Biological Processes	cell-cell adhesion	BCL2 EGFR RET	6.14	0.0125
477	GO Biological Processes	pallium development	ALK EGFR	11.70	0.0126
478	GO Biological Processes	vasculature development	FGFR2 MAP2K1 PTGS2	6.08	0.0128
479	GO Biological Processes	inner ear development	FGFR2 SOD1	11.52	0.013
480	GO Biological Processes	locomotory behavior	ALK SOD1	11.41	0.0132
481	GO Biological Processes	DNA replication	RRM1 TOP1	11.24	0.0136
482	GO Biological Processes	negative regulation of inflammatory response	CYP19A1 SOD1	11.12	0.0139
483	GO Biological Processes	epidermal cell differentiation	MAP2K1 SOD1	11.02	0.0141
484	GO Biological Processes	intracellular chemical homeostasis	BCL2 SLC29A1 SOD1	5.80	0.0145
485	GO Biological Processes	response to starvation	BCL2 UGT1A1	10.40	0.0158
486	GO Biological Processes	nucleobase-containing small molecule metabolic process	DCNK NQO1 RRM1	5.62	0.0158
487	GO Biological Processes	response to ketone	NQO1 EGFR	10.26	0.0162
488	GO Biological Processes	positive regulation of epithelial cell proliferation	EGFR FGFR2	10.21	0.0163
489	GO Biological Processes	regulation of transmembrane transporter activity	BCL2 ABCB1	10.21	0.0163
490	GO Biological Processes	protein ubiquitination	BCL2 NQO1 ABCB1	5.38	0.0178
491	GO Biological Processes	negative regulation of mitotic cell cycle	BCL2 EGFR	9.60	0.0183
492	GO Biological Processes	anatomical structure maturation	BCL2 RET	9.48	0.0188
493	GO Biological Processes	regulation of plasma membrane bounded cell projection organization	ALK MAP2K1 RET	5.23	0.0192
494	GO Biological Processes	chordate embryonic development	EGFR FGFR2 MAP2K1	5.19	0.0195
495	GO Biological Processes	negative regulation of apoptotic signaling pathway	BCL2 PTGS2	9.21	0.0198
496	GO Biological Processes	positive regulation of protein kinase activity	EGFR MAP2K1	9.13	0.0201
497	GO Biological Processes	positive regulation of neurogenesis	EGFR MAP2K1	9.13	0.0201
498	GO Biological Processes	regulation of cell projection organization	ALK MAP2K1 RET	5.09	0.0205
499	GO Biological Processes	regulation of transporter activity	BCL2 ABCB1	9.02	0.0206
500	GO Biological Processes	regulation of muscle system process	PTGS2 SOD1	8.92	0.021
501	GO Biological Processes	positive regulation of protein transport	EGFR PTGS2	8.92	0.021
502	GO Biological Processes	embryo development ending in birth or egg hatching	EGFR FGFR2 MAP2K1	5.03	0.0212
503	GO Biological Processes	regulation of calcium ion transport	BCL2 PTGS2	8.85	0.0214
504	GO Biological Processes	regulation of hormone secretion	CYP19A1 EGFR	8.81	0.0215
505	GO Biological Processes	cell fate commitment	BCL2 FGFR2	8.74	0.0218
506	GO Biological Processes	protein polyubiquitination	BCL2 NQO1	8.71	0.022
507	GO Biological Processes	regulation of blood circulation	EGFR PTGS2	8.64	0.0223
508	GO Biological Processes	regulation of protein serine/threonine kinase activity	EGFR MAP2K1	8.58	0.0226
509	GO Biological Processes	regulation of hydrolase activity	BCL2 FGFR2 SOD1	4.89	0.0228

510	GO Biological Processes	nucleotide biosynthetic process	DCK RRM1	8.54	0.0228
511	GO Biological Processes	nucleoside phosphate biosynthetic process	DCK RRM1	8.48	0.0231
512	GO Biological Processes	positive regulation of cell cycle process	EGFR RRM1	8.35	0.0238
513	GO Biological Processes	regulation of canonical Wnt signaling pathway	EGFR FGFR2	8.32	0.0239
514	GO Biological Processes	regulation of intracellular transport	MAP2K1 PTGS2	8.32	0.0239
515	GO Biological Processes	protein modification by small protein conjugation	BCL2 NQO1 ABCB1	4.79	0.0241
516	GO Biological Processes	rhythmic process	EGFR TOP1	8.29	0.0241
517	GO Biological Processes	regulation of phosphatidylinositol 3-kinase/protein kinase B signaling pathway	EGFR RET	8.23	0.0244
518	GO Biological Processes	telencephalon development	ALK EGFR	8.14	0.0249
519	GO Biological Processes	learning or memory	EGFR PTGS2	8.11	0.0251
520	GO Biological Processes	homeostasis of number of cells	BCL2 SOD1	7.97	0.0259
521	GO Biological Processes	developmental maturation	BCL2 RET	7.86	0.0266
522	GO Biological Processes	positive regulation of secretion by cell	CYP19A1 EGFR	7.72	0.0275
523	GO Biological Processes	negative regulation of defense response	CYP19A1 SOD1	7.64	0.028
524	GO Biological Processes	embryonic organ morphogenesis	FGFR2 SOD1	7.62	0.0282
525	GO Biological Processes	positive regulation of nervous system development	EGFR MAP2K1	7.59	0.0284
526	GO Biological Processes	regulation of cell cycle process	BCL2 EGFR RRM1	4.48	0.0285
527	GO Biological Processes	response to light stimulus	BCL2 EGFR	7.16	0.0316
528	GO Biological Processes	muscle organ development	BCL2 FGFR2	7.13	0.0318
529	GO Biological Processes	cellular response to abiotic stimulus	EGFR PTGS2	7.02	0.0327
530	GO Biological Processes	cellular response to environmental stimulus	EGFR PTGS2	7.02	0.0327
531	GO Biological Processes	cognition	EGFR PTGS2	7.00	0.0329
532	GO Biological Processes	positive regulation of establishment of protein localization	EGFR PTGS2	6.85	0.0342
533	GO Biological Processes	regulation of Wnt signaling pathway	EGFR FGFR2	6.55	0.0371
534	GO Biological Processes	angiogenesis	FGFR2 PTGS2	6.53	0.0373
535	GO Biological Processes	regulation of monoatomic ion transmembrane transport	BCL2 ABCB1	6.40	0.0387
536	GO Biological Processes	muscle tissue development	BCL2 FGFR2	6.37	0.0391
537	GO Biological Processes	regulation of body fluid levels	EGFR SLC29A1	6.33	0.0395
538	GO Biological Processes	regulation of protein catabolic process	NQO1 EGFR	6.19	0.0412
539	GO Biological Processes	regulation of neurogenesis	EGFR MAP2K1	5.91	0.0447
540	GO Biological Processes	negative regulation of cell migration	BCL2 CYP19A1	5.88	0.0451
541	GO Biological Processes	negative regulation of cell motility	BCL2 CYP19A1	5.66	0.0484
542	GO Biological Processes	regulation of metal ion transport	BCL2 PTGS2	5.63	0.0488
543	GO Biological Processes	regulation of cell growth	BCL2 EGFR	5.59	0.0494