

Supplementary Materials

Supplementary Table S1: Basic information of HZYS compound ingredients

Herb name	ID	Mol ID	Molecule name	OB (%)	DL
Astragalus Mongholicus	HQ1	MOL000033	(3S,8S,9S,10R,13R,14S,17R)-10,13-dimethyl-17-[(2R,5S)-5-propan-2-yloctan-2-yl]-2,3,4,7,8,9,11,12,14,15,16,17-dodecahydro-1H-cyclopenta[a]phenanthren-3-ol	36.23	0.78
	HQ2	MOL000239	Jaranol	50.83	0.29
	HQ3	MOL000296	hederagenin	36.91	0.75
	HQ4	MOL000371	3,9-di-O-methylnissolin	53.74	0.48
	HQ5	MOL000378	7-O-methylisomucronulatol	74.69	0.3
	HQ6	MOL000379	9,10-dimethoxypterocarpan-3-O-β-D-glucoside	36.74	0.92
	HQ7	MOL000380	(6aR,11aR)-9,10-dimethoxy-6a,11a-dihydro-6H-benzofurano[3,2-c]chromen-3-ol	64.26	0.42
	HQ8	MOL000387	Bifendate	31.1	0.67
	HQ9	MOL000392	formononetin	69.67	0.21
	HQ10	MOL000417	Calycosin	47.75	0.24
	HQ11	MOL000433	FA	68.96	0.71
	HQ12	MOL000442	1,7-Dihydroxy-3,9-dimethoxy pterocarpene	39.05	0.48
	HQ13		2-(Chloromethyl)-4-(4-Nitrophenyl)-1,3-Thiazole		
	HQ14		5,7-dihydroxy-2-(4-hydroxy-3-methoxyphenyl)-3-[(2S,3R,4S,5S,6R)-3,4,5-trihydroxy-6-[[[(2R,3R,4S,5S,6R)-3,4,5-trihydroxy-6-(hydroxymethyl)oxan-2-yl]oxymethyl]oxan-2-yl]oxychromen-4-one		
Radix Scrophulariae	A1	MOL000098	quercetin	46.43	0.28
	A2	MOL000354	isorhamnetin	49.6	0.31
	A3	MOL000422	kaempferol	41.88	0.24
	A4	MOL000211	Mairin	55.38	0.78
	XS1	MOL002222	sugiol	36.11	0.28
	XS2	MOL007658	14-deoxy-12(R)-sulfoandrographolide	62.57	0.42
	XS3	MOL007662	harpagoside_qt	122.87	0.32
	B1	MOL000358	beta-sitosterol	36.91	0.75
	E	MOL000359	sitosterol	36.91	0.75
	Glehnia littoralis	BSS1	MOL001939	Alloisoimperatorin	34.8
BSS2		MOL001941	Ammidin	34.55	0.22
BSS3		MOL001942	isoimperatorin	45.46	0.23
BSS4		MOL001951	Bergaptin	41.73	0.42
BSS5		MOL001956	Cnidilin	32.69	0.28
Pseudo Ginseng	A1	MOL000098	quercetin	46.43	0.28
	B1	MOL000358	beta-sitosterol	36.91	0.75
	B2	MOL000449	Stigmasterol	43.83	0.76
	SQ1	MOL001792	DFV	32.76	0.18
	SQ2	MOL002879	Diop	43.59	0.39
	SQ3	MOL005344	ginsenoside rh2	36.32	0.56
	A1	MOL000098	quercetin	46.43	0.28
	C	MOL001494	Mandenol	42	0.19
	B1	MOL000358	beta-sitosterol	36.91	0.75
	B2	MOL000449	Stigmasterol	43.83	0.76
Motherwort	YMC1	MOL001418	galeopsin	61.02	0.38
	YMC2	MOL001420	ZINC04073977	38	0.76

Supplementary Table S1: Basic information of HZYS compound ingredients

Herb name	ID	Mol ID	Molecule name	OB (%)	DL
Radix Achyranthis Bidentatae	YMC3	MOL001421	preleoheterin	85.97	0.33
	YMC4	MOL001422	iso-preleoheterin	66.29	0.33
	YMC5	MOL001439	arachidonic acid	45.57	0.2
	A1	MOL000098	quercetin	46.43	0.28
	A2	MOL000354	isorhamnetin	49.6	0.31
	A3	MOL000422	iso-preleoheterin	66.29	0.33
	NX1	MOL000085	beta-daucosterol_qt	36.91	0.75
	NX2	MOL000173	wogonin	30.68	0.23
	NX3	MOL000785	palmatine	64.6	0.65
	NX4	MOL001006	poriferasta-7,22E-dien-3beta-ol	42.98	0.76
	NX5	MOL001454	berberine	36.86	0.78
	Barbary Wolfberry Fruit	NX6	MOL001458	coptisine	30.67
NX7		MOL002643	delta 7-stigmastenol	37.42	0.75
NX8		MOL002714	baicalein	33.52	0.21
NX9		MOL002897	epiberberine	43.09	0.78
NX10		MOL003847	Inophyllum E	38.81	0.85
NX11		MOL004355	Spinasterol	42.98	0.76
NX12		MOL012461	28-norolean-17-en-3-ol	35.93	0.78
A1		MOL000098	quercetin	46.43	0.28
A3		MOL000422	kaempferol	41.88	0.24
B1		MOL000358	beta-sitosterol	36.91	0.75
B2		MOL000449	Stigmasterol	43.83	0.76
GQZ1		MOL000953	CLR	37.87	0.68
GQZ2		MOL001323	Sitosterol alpha1	43.28	0.78
GQZ3		MOL001495	Ethyl linolenate	46.1	0.2
GQZ4		MOL001979	LAN	42.12	0.75
GQZ5		MOL003578	Cycloartenol	38.69	0.78
GQZ6		MOL005406	atropine	45.97	0.19
GQZ7		MOL005438	campesterol	37.58	0.71
GQZ8		MOL006209	cyanin	47.42	0.76
GQZ9		MOL007449	24-methylidenelophenol	44.19	0.75
GQZ10		MOL008173	daucosterol_qt	36.91	0.75
GQZ11		MOL008400	glycitein	50.48	0.24
GQZ12	MOL009604	14b-pregnane	34.78	0.34	
GQZ13	MOL009617	24-ethylcholest-22-enol	37.09	0.75	
GQZ14	MOL009618	24-ethylcholesta-5,22-dienol	43.83	0.76	
GQZ15	MOL009620	24-methyl-31-norlanost-9(11)-enol	38	0.75	
GQZ16	MOL009621	24-methylenelanost-8-enol	42.37	0.77	
GQZ17	MOL009622	Fucoesterol	43.78	0.76	
GQZ18	MOL009633	31-norlanost-9(11)-enol	38.35	0.72	
GQZ19	MOL009634	31-norlanosterol	42.2	0.73	
GQZ20	MOL009635	4,24-methyllophenol	37.83	0.75	
GQZ21	MOL009639	Lophenol	38.13	0.71	
GQZ22	MOL009640	4alpha,14alpha,24-trimethylcholesta-8,24-dienol	38.91	0.76	

Supplementary Table S1: Basic information of HZYS compound ingredients

Herb name	ID	Mol ID	Molecule name	OB (%)	DL
	GQZ23	MOL009641	4alpha,24-dimethylcholesta-7,24-dienol	42.65	0.75
	GQZ24	MOL009642	4alpha-methyl-24-ethylcholesta-7,24-dienol	42.3	0.78
	GQZ25	MOL009644	6-Fluoroindole-7-Dehydrocholesterol	43.73	0.72
	GQZ26	MOL009646	7-O-Methyluteolin-6-C-beta-glucoside_qt	40.77	0.3
	GQZ27	MOL009650	Atropine	42.16	0.19
	GQZ28	MOL009656	(E,E)-1-ethyl octadeca-3,13-dienoate	42	0.19
	GQZ29	MOL009677	lanost-8-en-3beta-ol	34.23	0.74
	GQZ30	MOL009678	lanost-8-enol	34.23	0.74
	GQZ31	MOL009681	Obtusifoliol	42.55	0.76
	A1	MOL000098	quercetin	46.43	0.28
	B1	MOL000358	beta-sitosterol	36.91	0.75
	B2	MOL000449	Stigmasterol	43.83	0.76
	C	MOL001494	Mandenol	42	0.19
Chinese yam	SY1	MOL000322	Kadsurenone	54.72	0.38
	SY2	MOL000546	diosgenin	80.88	0.81
	SY3	MOL001559	piperlonguminine	30.71	0.18
	SY4	MOL001736	(-)-taxifolin	60.51	0.27
	SY5	MOL005430	hancinone C	59.05	0.39
	SY6	MOL005435	24-Methylcholest-5-enyl-3beta-O-glucopyranoside_qt	37.58	0.72
	SY7	MOL005440	Isofucosterol	43.78	0.76
	SY8	MOL005458	Dioscoreside C_qt	36.38	0.87
	SY9	MOL005465	AIDS180907	45.33	0.77
	B2	MOL000449	Stigmasterol	43.83	0.76
	D1	MOL000953	CLR	37.87	0.68
	D2	MOL005438	campesterol	37.58	0.71
Coix Seed	YYR1	MOL000359	sitosterol	36.91	0.75
	YYR2	MOL008121	2-Monoolein	34.23	0.29
	B2	MOL000449	Stigmasterol	43.83	0.76
	C	MOL001494	Mandenol	42	0.19
	D1	MOL000953	CLR	37.87	0.68
	D3	MOL001323	Sitosterol alpha1	43.28	0.78
Eclipta prostrata	MHL1	MOL000006	luteolin	36.16	0.25
	MHL2	MOL001689	acacetin	34.97	0.24
	MHL3	MOL002975	butin	69.94	0.21
	MHL4	MOL003389	3'-O-Methylorobol	57.41	0.27
	MHL5	MOL003398	Pratensein	39.06	0.28
	MHL6	MOL003402	demethylwedelolactone	72.13	0.43
	MHL7	MOL003404	wedelolactone	49.6	0.48
	A1	MOL000098	quercetin	46.43	0.28
Eucommia	DZ1	MOL000073	ent-Epicatechin	48.96	0.24
	DZ2	MOL000443	Erythraline	49.18	0.55
	DZ3	MOL002058	40957-99-1	57.2	0.62
	DZ4	MOL002773	beta-carotene	37.18	0.58
	DZ5	MOL004367	olivil	62.23	0.41
	DZ6	MOL006709	AIDS214634	92.43	0.55

Supplementary Table S1: Basic information of HZYS compound ingredients

Herb name	ID	Mol ID	Molecule name	OB (%)	DL
	DZ7	MOL007059	3-beta-Hydroxymethyllenetanshiquinone	32.16	0.41
	DZ8	MOL007563	Yangambin	57.53	0.81
	DZ9	MOL008240	(E)-3-[4-[(1R,2R)-2-hydroxy-2-(4-hydroxy-3-methoxy-phenyl)-1-methylol-ethoxy]-3-methoxy-phenyl]acrolein	56.32	0.36
	DZ10	MOL009009	(+)-medioresinol	87.19	0.62
	DZ11	MOL009015	(-)-Tabernemontanine	58.67	0.61
	DZ12	MOL009027	Cyclopamine	55.42	0.82
	DZ13	MOL009029	Dehydrodiconiferyl alcohol 4,gamma'-di-O-beta-D-glucopyanoside _qt	51.44	0.4
	DZ14	MOL009031	Cinchonan-9-al, 6'-methoxy-, (9R)-	68.22	0.4
	DZ15	MOL009042	Helenalin	77.01	0.19
	DZ16	MOL009047	(+)-Eudesmin	33.29	0.62
	DZ17	MOL009053	4-[(2S,3R)-5-[(E)-3-hydroxyprop-1-enyl]-7-methoxy-3-methylol-2,3-dihydrobenzofuran-2-yl]-2-methoxy-phenol	50.76	0.39
	DZ18	MOL009055	hirsutin_qt	49.81	0.37
	DZ19	MOL009057	liriodendrin_qt	53.14	0.8
	DZ20	MOL011604	Syringetin	36.82	0.37
	A1	MOL000098	quercetin	46.43	0.28
	A3	MOL000422	kaempferol	41.88	0.24
	A4	MOL000211	Mairin	55.38	0.78
	B1	MOL000358	beta-sitosterol	36.91	0.75
Plantain seed	CQZ1	MOL000359	Dinatin	30.97	0.27
	CQZ2	MOL001735	Dinatin	30.97	0.27
	CQZ3	MOL005869	daucostero_qt	36.91	0.75
	CQZ4	MOL007813	Dihydrotricetin	58.12	0.28
	CQZ5	MOL007819	Hypolaetin	33.24	0.28
	CQZ6	MOL007835	orobanchoside_qt	55.99	0.82
	A1	MOL000098	quercetin	46.43	0.28
Leech	SZ1		crocetin		
	SZ2		croomionidine		
	SZ3		genipinic acid		
	SZ4		palmitic acid		
	SZ5		butanedioic acid		
	SZ6		phenylalanine		
	SZ7		L-methionine		
	SZ8		L-glutamic acid		
	SZ9		L-tyrosine		
	SZ10		L-leucine		
	SZ11		proline		
	SZ12		L-tryptophan		
	SZ13		L-aspartic acid		
	SZ14		valine		
	SZ15		L-isoleucine		
	SZ16		L-histidine		
	SZ17		methyl (Z) -11-hexadecenoate		

Supplementary Table S1: Basic information of HZYS compound ingredients

Herb name	ID	Mol ID	Molecule name	OB (%)	DL
	SZ18		methyl 14-methylpentadecanoate		
	SZ19		methyl 4-methyltetradecanoate		
	SZ20		methyl 12-methyltetradecanoate		
	SZ21		hirudinoidine a		
	SZ22		xanthine		
	SZ23		7-dien-3-one		
	SZ24		hexanal		
	SZ25		nicotinic acid		
	SZ26		hirudin		
	SZ27		heparin		
	SZ28		antithrombin		
Human Placenta	ZHC1		acetylcholine		
	ZHC2		estrone		
	ZHC3		testosterone		
	ZHC4		4-pregnene-17 α , 20 α , 21-triol-3, 11-dione		
	ZHC5		Mmp-2/mmp-9 inhibitor II		
	ZHC6		11-dehydrocorticosterone		
	ZHC7		11-desoxycorticosterone		
	ZHC8		tetrahydrocorticosterone		
	ZHC9		progesterone		
	ZHC10		17-hydroxycorticosterone		
	ZHC11		estradiol		
	ZHC12		estriol		
Periostracum Cicada	CT1		glutamic acid		
	CT2		phenylalanine		
	CT3		lysine		
	CT4		ecdysterone 20,22-monoacetone		
	CT5		Hydroxyecdysone		
	CT6		(3S,5R,9R,10R,13R,14S,17S)-3,14-dihydroxy-10,13-dimethyl-17-[(2R,3R)-2,3,6-trihydroxy-6-methylheptan-2-yl]-2,3,4,5,9,11,12,15,16,17-decahydro-1H-cyclopenta[a]phenanthren-6-one		
	CT7		Ornithine		
	CT8		Glutamic acid		
	CT9		Phenylalanine		
	CT10		Lysine		
	CT11		ornithine		

Supplementary Table S2: Information on potential targets

No.	Gene name	Protein names	UniProt ID	Degree
1	PTGS2	Prostaglandin G/H synthase 2	P35354	103
2	NCOA2	Nuclear receptor coactivator 2	Q15596	86
3	PGR	Progesterone receptor	P06401	75
4	PTGS1	Prostaglandin G/H synthase 1	P23219	70
5	PPARG	Peroxisome proliferator-activated receptor gamma	P37231	49
6	SCN5A	Sodium channel protein type 5 subunit alpha	Q14524	46
7	ADRB2	Beta-2 adrenergic receptor	P07550	45
8	NR3C2	Mineralocorticoid receptor	P08235	44
9	GABRA1	Gamma-aminobutyric acid receptor subunit alpha-1	P14867	44
10	PRSS1	Trypsin-1	P07477	44
11	RXRA	Retinoic acid receptor RXR-alpha	P19793	40
12	CHRM1	Muscarinic acetylcholine receptor M1	P11229	38
13	AR	Androgen receptor	P10275	38
14	ACHE	Acetylcholinesterase	P22303	36
15	NOS2	Nitric oxide synthase, inducible	P35228	34
16	ADRA1B	Alpha-1B adrenergic receptor	P35368	32
17	KCNH2	Potassium voltage-gated channel subfamily H member 2	Q12809	32
18	CHRM3	Muscarinic acetylcholine receptor M3	P20309	29
19	CHRM2	Muscarinic acetylcholine receptor M2	P08172	28
20	ESR2	Estrogen receptor beta	Q92731	28
21	CASP3	Caspase-3	P42574	27
22	ESR1	Estrogen receptor	P03372	26
23	BCL2	Apoptosis regulator Bcl-2	P10415	26
24	F7	Coagulation factor VII	P08709	25
25	JUN	Transcription factor AP-1	P05412	23
26	BAX	Apoptosis regulator BAX	Q07812	23
27	GSK3B	Glycogen synthase kinase-3 beta	P49841	22
28	RELA	Transcription factor p65	Q04206	22
29	MAOB	Amine oxidase [flavin-containing] B	P27338	22
30	SLC6A2	Sodium-dependent noradrenaline transporter	P23975	20
31	ADRA1A	Alpha-1A adrenergic receptor	P35348	19
32	NCOA1	Nuclear receptor coactivator 1	Q15788	19
33	MMP9	Matrix metalloproteinase-9	P14780	19
34	PLAU	Urokinase-type plasminogen activator	P00749	19
35	AKT1	RAC-alpha serine/threonine-protein kinase	P31749	19
36	PPARD	Peroxisome proliferator-activated receptor delta	Q03181	18
37	TNF	Tumor necrosis factor	P01375	18
38	MMP1	Interstitial collagenase	P03956	17
39	CASP9	Caspase-9	P55211	17
40	NR3C1	Glucocorticoid receptor	P04150	16
41	CHEK1	Serine/threonine-protein kinase Chk1	O14757	16
42	PPARA	Peroxisome proliferator-activated receptor alpha	Q07869	16
43	INSR	Insulin receptor	P06213	16
44	NR1I3	Nuclear receptor subfamily 1 group I member 3	Q14994	16
45	MPO	Myeloperoxidase	P05164	16

Supplementary Table S2: Information on potential targets

No.	Gene name	Protein names	UniProt ID	Degree
46	HMOX1	Heme oxygenase 1	P09601	16
47	CASP8	Caspase-8	Q14790	16
48	SLC6A4	Sodium-dependent serotonin transporter	P31645	15
49	CHRM4	Muscarinic acetylcholine receptor M4	P08173	15
50	SLC2A4	Solute carrier family 2, facilitated glucose transporter member 4	P14672	15
51	GSTP1	Glutathione S-transferase P	P09211	15
52	TP53	Cellular tumor antigen p53	P04637	15
53	IL6	Interleukin-6	P05231	15
54	SERPINA6	Corticosteroid-binding globulin	P08185	14
55	SLC6A3	Sodium-dependent dopamine transporter	Q01959	14
56	OPRM1	Mu-type opioid receptor	P35372	14
57	GSTM2	Glutathione S-transferase Mu 2	P28161	14
58	PON1	Serum paraoxonase/arylesterase 1	P27169	14
59	AHR	Aryl hydrocarbon receptor	P35869	14
60	NR1I2	Nuclear receptor subfamily 1 group I member 2	O75469	14
61	ICAM1	Intercellular adhesion molecule 1	P05362	14
62	CYP1A2	Cytochrome P450 1A2	P05177	14
63	CYP3A4	Cytochrome P450 3A4	P08684	14
64	PRKCA	Protein kinase C alpha type	P17252	14
65	AHSA1	Activator of 90 kDa heat shock protein ATPase homolog 1	O95433	14
66	CDKN1A	Cyclin-dependent kinase inhibitor 1	P38936	14
67	VEGFA	Vascular endothelial growth factor A	P15692	14
68	AKR1B10	Aldo-keto reductase family 1 member B10	O60218	13
69	ADRB1	Beta-1 adrenergic receptor	P08588	13
70	ADRA2A	Alpha-2A adrenergic receptor	P08913	13
71	ADH1C	Alcohol dehydrogenase 1C	P00326	13
72	CCNA2	Cyclin-A2	P20248	13
73	GSTM1	Glutathione S-transferase Mu 1	P09488	13
74	DIO1	Type I iodothyronine deiodinase	P49895	13
75	PSMD3	26S proteasome non-ATPase regulatory subunit 3	O43242	13
76	HAS2	Hyaluronan synthase 2	Q92819	13
77	CYP1B1	Cytochrome P450 1B1	Q16678	13
78	VCAM1	Vascular cell adhesion protein 1	P19320	13
79	SELE	E-selectin	P16581	13
80	CYP1A1	Cytochrome P450 1A1	P04798	13
81	STAT1	Signal transducer and activator of transcription 1-alpha/beta	P42224	13
82	EGFR	Epidermal growth factor receptor	P00533	13
83	PTGES	Prostaglandin E synthase	O14684	12
84	BACE1	Beta-secretase 1	P56817	12
85	MAPK14	Mitogen-activated protein kinase 14	Q16539	12
86	ODC1	Ornithine decarboxylase	P11926	12
87	MAPK1	Mitogen-activated protein kinase 1	P28482	12
88	MMP2	72 kDa type IV collagenase	P08253	12
89	CCND1	G1/S-specific cyclin-D1	P24385	12
90	KDR	Vascular endothelial growth factor receptor 2	P35968	11

Supplementary Table S2: Information on potential targets

No.	Gene name	Protein names	UniProt ID	Degree
91	CD40LG	CD40 ligand	P29965	11
92	NCF1	Neutrophil cytosol factor 1	P14598	11
93	TOP2A	DNA topoisomerase 2-alpha	P11388	11
94	IFNG	Interferon gamma	P01579	11
95	SERPINE1	Plasminogen activator inhibitor 1	P05121	11
96	CCNB1	G2/mitotic-specific cyclin-B1	P14635	11
97	IL2	Interleukin-2	P60568	11
98	CXCL8	Interleukin-8	P10145	11
99	CCL2	C-C motif chemokine 2	P13500	11
100	MYC	Myc proto-oncogene protein	P01106	11
101	ERBB2	Receptor tyrosine-protein kinase erbB-2	P04626	11
102	HIF1A	Hypoxia-inducible factor 1-alpha	Q16665	11
103	NFKBIA	NF-kappa-B inhibitor alpha	P25963	11
104	RB1	Retinoblastoma-associated protein	P06400	11
105	EGF	Pro-epidermal growth factor	P01133	11
106	FOS	Proto-oncogene c-Fos	P01100	11
107	GRM5	Metabotropic glutamate receptor 5	P41594	10
108	IGF2	Insulin-like growth factor II	P01344	10
109	CTSD	Cathepsin D	P07339	10
110	E2F1	Transcription factor E2F1	Q01094	10
111	CXCL10	C-X-C motif chemokine 10	P02778	10
112	CXCL2	C-X-C motif chemokine 2	P19875	10
113	PARP1	Poly [ADP-ribose] polymerase 1	P09874	10
114	NFE2L2	Nuclear factor erythroid 2-related factor 2	Q16236	10
115	PLAT	Tissue-type plasminogen activator	P00750	10
116	NOS3	Nitric oxide synthase, endothelial	P29474	10
117	BIRC5	Baculoviral IAP repeat-containing protein 5	O15392	10
118	PRKCB	Protein kinase C beta type	P05771	10
119	PTGER3	Prostaglandin E2 receptor EP3 subtype	P43115	10
120	IL1B	Interleukin-1 beta	P01584	10
121	GJA1	Gap junction alpha-1 protein	P17302	10
122	F3	Tissue factor	P13726	10
123	CAV1	Caveolin-1	Q03135	10
124	ACACA	Acetyl-CoA carboxylase 1	Q13085	10
125	SOD1	Superoxide dismutase [Cu-Zn]	P00441	10
126	TOP1	DNA topoisomerase 1	P11387	10
127	IL10	Interleukin-10	P22301	10
128	EIF6	Eukaryotic translation initiation factor 6	P56537	10
129	BCL2L1	Bcl-2-like protein 1	Q07817	10
130	ADRA1D	Alpha-1D adrenergic receptor	P25100	9
131	CHRM5	Muscarinic acetylcholine receptor M5	P08912	9
132	MET	Hepatocyte growth factor receptor	P08581	9
133	RASA1	Ras GTPase-activating protein 1	P20936	9
134	HK2	Hexokinase-2	P52789	9
135	NPEPPS	Puromycin-sensitive aminopeptidase	P55786	9

Supplementary Table S2: Information on potential targets

No.	Gene name	Protein names	UniProt ID	Degree
136	PCOLCE	Procollagen C-endopeptidase enhancer 1	Q15113	9
137	ERBB3	Receptor tyrosine-protein kinase erbB-3	P21860	9
138	IRF1	Interferon regulatory factor 1	P10914	9
139	IGFBP3	Insulin-like growth factor-binding protein 3	P17936	9
140	ACP3	Prostatic acid phosphatase	P15309	9
141	E2F2	Transcription factor E2F2	Q14209	9
142	RASSF1	Ras association domain-containing protein 1	Q9NS23	9
143	RUNX2	Runt-related transcription factor 2	Q13950	9
144	SPP1	Osteopontin	P10451	9
145	CHUK	Inhibitor of nuclear factor kappa-B kinase subunit alpha	O15111	9
146	HSF1	Heat shock factor protein 1	Q00613	9
147	CLDN4	Claudin-4	O14493	9
148	CHEK2	Serine/threonine-protein kinase Chk2	O96017	9
149	DCAF5	DDB1- and CUL4-associated factor 5	Q96JK2	9
150	CXCL11	C-X-C motif chemokine 11	O14625	9
151	IL1A	Interleukin-1 alpha	P01583	9
152	THBD	Thrombomodulin	P07204	9
153	HSPB1	Heat shock protein beta-1	P04792	9
154	DUOX2	Dual oxidase 2	Q9NRD8	9
155	RUNX1T1	Protein CBFA2T1	Q06455	9
156	RAF1	RAF proto-oncogene serine/threonine-protein kinase	P04049	9
157	POR	NADPH--cytochrome P450 reductase	P16435	9
158	ELK1	ETS domain-containing protein Elk-1	P19419	9
159	MMP3	Stromelysin-1	P08254	9
160	OPRD1	Delta-type opioid receptor	P41143	8
161	ANPEP	Aminopeptidase N	P15144	8
162	SLC1A1	Excitatory amino acid transporter 3	P43005	8
163	CTSK	Cathepsin K	P43235	7
164	F2R	Proteinase-activated receptor 1	P25116	7
165	RORA	Nuclear receptor ROR-alpha	P35398	7
166	JAK2	Tyrosine-protein kinase JAK2	O60674	7
167	MTOR	Serine/threonine-protein kinase mTOR	P42345	7
168	LTA4H	Leukotriene A-4 hydrolase	P09960	7
169	CHRNA2	Neuronal acetylcholine receptor subunit alpha-2	Q15822	7
170	GPBAR1	G-protein coupled bile acid receptor 1	Q8TDU6	6
171	HSD17B2	Estradiol 17-beta-dehydrogenase 2	P37059	6
172	FFAR1	Free fatty acid receptor 1	O14842	6
173	HRH3	Histamine H3 receptor	Q9Y5N1	6
174	MCL1	Induced myeloid leukemia cell differentiation protein Mcl-1	Q07820	6
175	ADRA2C	Alpha-2C adrenergic receptor	P18825	6
176	ADRA2B	Alpha-2B adrenergic receptor	P18089	6
177	G6PD	Glucose-6-phosphate 1-dehydrogenase	P11413	6
178	KDM4C	Lysine-specific demethylase 4C	Q9H3R0	6
179	GRM2	Metabotropic glutamate receptor 2	Q14416	6
180	GRM7	Metabotropic glutamate receptor 7	Q14831	6

Supplementary Table S2: Information on potential targets

No.	Gene name	Protein names	UniProt ID	Degree
181	GRM8	Metabotropic glutamate receptor 8	O00222	6
182	GRM4	Metabotropic glutamate receptor 4	Q14833	6
183	CTRB1	Chymotrypsinogen B	P17538	6
184	MAOA	Amine oxidase [flavin-containing] A	P21397	6
185	MAP2	Microtubule-associated protein 2	P11137	6
186	HSD17B1	Estradiol 17-beta-dehydrogenase 1	P14061	5
187	UGT2B7	UDP-glucuronosyltransferase 2B7	P16662	5
188	STS	Steryl-sulfatase	P08842	5
189	CDK1	Cyclin-dependent kinase 1	P06493	5
190	HRH4	Histamine H4 receptor	Q9H3N8	5
191	HDAC3	Histone deacetylase 3	O15379	5
192	PLG	Plasminogen	P00747	5
193	EGLN1	Egl nine homolog 1	Q9GZT9	5
194	TERT	Telomerase reverse transcriptase	O14746	5
195	MGLL	Monoglyceride lipase	Q99685	5
196	OAT	Ornithine aminotransferase, mitochondrial	P04181	5
197	MAP2K1	Dual specificity mitogen-activated protein kinase kinase 1	Q02750	5
198	REN	Renin	P00797	5
199	POLB	DNA polymerase beta	P06746	5
200	PEPD	Xaa-Pro dipeptidase	P12955	5
201	SLC1A2	Excitatory amino acid transporter 2	P43004	5
202	GRM6	Metabotropic glutamate receptor 6	O15303	5
203	GRM1	Metabotropic glutamate receptor 1	Q13255	5
204	GRM3	Metabotropic glutamate receptor 3	Q14832	5
205	IKBKB	Inhibitor of nuclear factor kappa-B kinase subunit beta	O14920	5
206	JAK1	Tyrosine-protein kinase JAK1	P23458	4
207	KDM5C	Lysine-specific demethylase 5C	P41229	4
208	PHF8	Histone lysine demethylase PHF8	Q9UPP1	4
209	KDM2A	Lysine-specific demethylase 2A	Q9Y2K7	4
210	ROCK2	Rho-associated protein kinase 2	O75116	4
211	CD81	CD81 antigen	P60033	4
212	KMO	Kynurenine 3-monooxygenase	O15229	4
213	PLA2G4A	Cytosolic phospholipase A2	P47712	4
214	HTR3A	5-hydroxytryptamine receptor 3A	P46098	4
215	CRHR1	Corticotropin-releasing factor receptor 1	P34998	4
216	GLUL	Glutamine synthetase	P15104	4
217	IRAK4	Interleukin-1 receptor-associated kinase 4	Q9NWZ3	4
218	CLK4	Dual specificity protein kinase CLK4	Q9HAZ1	4
219	FGFR1	Fibroblast growth factor receptor 1	P11362	4
220	CDK2	Cyclin-dependent kinase 2	P24941	4
221	P2RX3	P2X purinoceptor 3	P56373	4
222	SYK	Tyrosine-protein kinase SYK	P43405	4
223	SLPI	Antileukoproteinase	P03973	4
224	AKR1C3	Aldo-keto reductase family 1 member C3	P42330	4
225	PPP3CA	Serine/threonine-protein phosphatase 2B catalytic subunit alpha isoform	Q08209	4

Supplementary Table S2: Information on potential targets

No.	Gene name	Protein names	UniProt ID	Degree
226	MAPK8	Mitogen-activated protein kinase 8	P45983	4
227	GRIA2	Glutamate receptor 2	P42262	4
228	SLC22A2	Solute carrier family 22 member 2	O15244	3
229	ADCY10	Adenylate cyclase type 10	Q96PN6	3
230	GPER1	G-protein coupled estrogen receptor 1	Q99527	3
231	HLCS	Biotin--protein ligase	P50747	3
232	PTK2	Focal adhesion kinase 1	Q05397	3
233	SELP	P-selectin	P16109	3
234	HDAC6	Histone deacetylase 6	Q9UBN7	3
235	TRPA1	Transient receptor potential cation channel subfamily A member 1	O75762	3
236	P2RX7	P2X purinoceptor 7	Q99572	3
237	ALK	ALK tyrosine kinase receptor	Q9UM73	3
238	LTB4R	Leukotriene B4 receptor 1	Q15722	3
239	MMP14	Matrix metalloproteinase-14	P50281	3
240	CYP26A1	Cytochrome P450 26A1	O43174	3
241	NPY5R	Neuropeptide Y receptor type 5	Q15761	3
242	MAP3K5	Mitogen-activated protein kinase kinase kinase 5	Q99683	3
243	CPT1A	Carnitine O-palmitoyltransferase 1, liver isoform	P50416	3
244	SLC5A1	Sodium/glucose cotransporter 1	P13866	3
245	RARA	Retinoic acid receptor alpha	P10276	3
246	RARB	Retinoic acid receptor beta	P10826	3
247	RARG	Retinoic acid receptor gamma	P13631	3
248	CNR2	Cannabinoid receptor 2	P34972	3
249	ACP1	Low molecular weight phosphotyrosine protein phosphatase	P24666	3
250	RORC	Nuclear receptor ROR-gamma	P51449	3
251	ACE	Angiotensin-converting enzyme	P12821	3
252	BBOX1	Gamma-butyrobetaine dioxygenase	O75936	3
253	TBXA2R	Thromboxane A2 receptor	P21731	3
254	F2	Prothrombin	P00734	3
255	ALPL	Alkaline phosphatase, tissue-nonspecific isozyme	P05186	3
256	HRH1	Histamine H1 receptor	P35367	3
257	PDE10A	cAMP and cAMP-inhibited cGMP 3',5'-cyclic phosphodiesterase 10A	Q9Y233	3
258	MAPKAPK2	MAP kinase-activated protein kinase 2	P49137	3
259	IMPDH2	Inosine-5'-monophosphate dehydrogenase 2	P12268	3
260	DYRK1B	Dual specificity tyrosine-phosphorylation-regulated kinase 1B	Q9Y463	3
261	CLK2	Dual specificity protein kinase CLK2	P49760	3
262	GSK3A	Glycogen synthase kinase-3 alpha	P49840	3
263	SLC5A2	Sodium/glucose cotransporter 2	P31639	3
264	SORD	Sorbitol dehydrogenase	Q00796	3
265	CCR1	C-C chemokine receptor type 1	P32246	3
266	AGTR1	Type-1 angiotensin II receptor	P30556	3
267	FLT1	Vascular endothelial growth factor receptor 1	P17948	3
268	PGK1	Phosphoglycerate kinase 1	P00558	3
269	CPB1	Carboxypeptidase B	P15086	3

Supplementary Table S2: Information on potential targets

No.	Gene name	Protein names	UniProt ID	Degree
270	TAAR1	Trace amine-associated receptor 1	Q96RJ0	3
271	FASN	Fatty acid synthase	P49327	3
272	CPA3	Mast cell carboxypeptidase A	P15088	3
273	CCR5	C-C chemokine receptor type 5	P51681	2
274	ADRB3	Beta-3 adrenergic receptor	P13945	2
275	AHCY	Adenosylhomocysteinase	P23526	2
276	MAP3K8	Mitogen-activated protein kinase kinase kinase 8	P41279	2
277	PARP2	Poly [ADP-ribose] polymerase 2	Q9UGN5	2
278	UPP1	Uridine phosphorylase 1	Q16831	2
279	TK1	Thymidine kinase, cytosolic	P04183	2
280	RPS6KA5	Ribosomal protein S6 kinase alpha-5	O75582	2
281	TKT	Transketolase	P29401	2
282	CFTR	Cystic fibrosis transmembrane conductance regulator	P13569	2
283	ECE1	Endothelin-converting enzyme 1	P42892	2
284	GZMB	Granzyme B	P10144	2
285	ABCC1	Multidrug resistance-associated protein 1	P33527	2
286	CRP	C-reactive protein [Cleaved into: C-reactive protein	P02741	2
287	PDGFB	Platelet-derived growth factor subunit B	P01127	2
288	CXCR4	C-X-C chemokine receptor type 4	P61073	2
289	HDAC2	Histone deacetylase 2	Q92769	2
290	EPHX1	Epoxide hydrolase 1	P07099	2
291	BRD4	Bromodomain-containing protein 4	O60885	2
292	HCK	Tyrosine-protein kinase HCK	P08631	2
293	HCAR2	Hydroxycarboxylic acid receptor 2	Q8TDS4	2
294	JAK3	Tyrosine-protein kinase JAK3	P52333	2
295	PDGFRA	Platelet-derived growth factor receptor alpha	P16234	2
296	PDGFRB	Platelet-derived growth factor receptor beta	P09619	2
297	GCGR	Glucagon receptor	P47871	2
298	FGFR3	Fibroblast growth factor receptor 3	P22607	2
299	LIMK2	LIM domain kinase 2	P53671	2
300	QPCT	Glutaminy-peptide cyclotransferase	Q16769	2
301	AKR1C1	Aldo-keto reductase family 1 member C1	Q04828	2
302	PREP	Prolyl endopeptidase	P48147	2
303	CNR1	Cannabinoid receptor 1	P21554	2
304	SCD	Acyl-CoA desaturase	O00767	2
305	FABP1	Fatty acid-binding protein, liver	P07148	2
306	KYNU	Kynureninase	Q16719	2
307	MIF	Macrophage migration inhibitory factor	P14174	2
308	MME	Neprilysin	P08473	2
309	CAT	Catalase	P04040	2
310	FN1	Fibronectin	P02751	2
311	PCNA	Proliferating cell nuclear antigen	P12004	2
312	IL4	Interleukin-4	P05112	2
313	PKIA	cAMP-dependent protein kinase inhibitor alpha	P61925	2
314	CA12	Carbonic anhydrase 12	O43570	2

Supplementary Table S2: Information on potential targets

No.	Gene name	Protein names	UniProt ID	Degree
315	NQO2	Ribosylidihyronicotinamide dehydrogenase [quinone]	P16083	2
316	ALOX5	Polyunsaturated fatty acid 5-lipoxygenase	P09917	2
317	CASP7	Caspase-7	P55210	2
318	CTNNB1	Catenin beta-1	P35222	2
319	RNPEP	Aminopeptidase B	Q9H4A4	2
320	PLK1	Serine/threonine-protein kinase PLK1	P53350	2
321	MAPK7	Mitogen-activated protein kinase 7	Q13164	2
322	CDK7	Cyclin-dependent kinase 7	P50613	2
323	SF3B3	Splicing factor 3B subunit 3	Q15393	2
324	MCHR1	Melanin-concentrating hormone receptor 1	Q99705	2
325	GRB2	Growth factor receptor-bound protein 2	P62993	2
326	TBXAS1	Thromboxane-A synthase	P24557	2
327	TYRO3	Tyrosine-protein kinase receptor TYRO3	Q06418	2
328	AXL	Tyrosine-protein kinase receptor UFO	P30530	2
329	SMO	Smoothed homolog	Q99835	2
330	AVPR1A	Vasopressin V1a receptor	P37288	2
331	CFD	Complement factor D	P00746	2
332	OLR1	Oxidized low-density lipoprotein receptor 1	P78380	2
333	PYGM	Glycogen phosphorylase, muscle form	P11217	2
334	HSP90AA1	Heat shock protein HSP 90-alpha	P07900	1
335	CENPE	Centromere-associated protein E	Q02224	1
336	CYP2C19	Cytochrome P450 2C19	P33261	1
337	ERN1	Serine/threonine-protein kinase/endoribonuclease IRE1	O75460	1
338	HDAC7	Histone deacetylase 7	Q8WUI4	1
339	HDAC9	Histone deacetylase 9	Q9UKVO	1
340	HDAC5	Histone deacetylase 5	Q9UQL6	1
341	STAT6	Signal transducer and activator of transcription 6	P42226	1
342	HDAC4	Histone deacetylase 4	P56524	1
343	HSP90AB1	Heat shock protein HSP 90-beta	P08238	1
344	ROS1	Proto-oncogene tyrosine-protein kinase ROS	P08922	1
345	EP300	Histone acetyltransferase p300	Q09472	1
346	CCR3	C-C chemokine receptor type 3	P51677	1
347	MMP16	Matrix metalloproteinase-16	P51512	1
348	ADK	Adenosine kinase	P55263	1
349	CYP27A1	Sterol 26-hydroxylase, mitochondrial	Q02318	1
350	TTR	Transthyretin	P02766	1
351	MAP3K7	Mitogen-activated protein kinase kinase kinase 7	O43318	1
352	KCNK2	Potassium channel subfamily K member 2	O95069	1
353	PTGES2	Prostaglandin E synthase 2	Q9H7Z7	1
354	TNFRSF1B	Tumor necrosis factor receptor superfamily member 1B	P20333	1
355	KCNK10	Potassium channel subfamily K member 10	P57789	1
356	ABCC4	Multidrug resistance-associated protein 4	O15439	1
357	ABCG1	ATP-binding cassette sub-family G member 1	P45844	1
358	CETP	Cholesteryl ester transfer protein	P11597	1
359	C1R	Complement C1r subcomponent	P00736	1

Supplementary Table S2: Information on potential targets

No.	Gene name	Protein names	UniProt ID	Degree
360	UCP2	Mitochondrial uncoupling protein 2	P55851	1
361	ALDH3A1	Aldehyde dehydrogenase, dimeric NADP-preferring	P30838	1
362	ALDH2	Aldehyde dehydrogenase, mitochondrial	P05091	1
363	GLB1	Beta-galactosidase	P16278	1
364	PECAM1	Platelet endothelial cell adhesion molecule	P16284	1
365	TNFRSF1A	Tumor necrosis factor receptor superfamily member 1A	P19438	1
366	RXRG	Retinoic acid receptor RXR-gamma	P48443	1
367	TRPV1	Transient receptor potential cation channel subfamily V member 1	Q8NER1	1
368	PTPRA	Receptor-type tyrosine-protein phosphatase alpha	P18433	1
369	THRA	Thyroid hormone receptor alpha	P10827	1
370	BHMT2	S-methylmethionine--homocysteine S-methyltransferase BHMT2	Q9H2M3	1
371	HNF4A	Hepatocyte nuclear factor 4-alpha	P41235	1
372	RORB	Nuclear receptor ROR-beta	Q92753	1
373	GLRA1	Glycine receptor subunit alpha-1	P23415	1
374	CYP26B1	Cytochrome P450 26B1	Q9NR63	1
375	NROB2	Nuclear receptor subfamily O group B member 2	Q15466	1
376	GSTK1	Glutathione S-transferase kappa 1	Q9Y2Q3	1
377	HAO1	Hydroxyacid oxidase 1	Q9UJM8	1
378	CPA1	Carboxypeptidase A1	P15085	1
379	ACLY	ATP-citrate synthase	P53396	1
380	SLC13A5	Solute carrier family 13 member 5	Q86YT5	1
381	TAGLN2	Transgelin-2	P37802	1
382	SULF1	Extracellular sulfatase Sulf-1	Q8IWU6	1
383	STIP1	Stress-induced-phosphoprotein 1	P31948	1
384	SLK	STE20-like serine/threonine-protein kinase	Q9H2G2	1
385	SLC5A3	Sodium/myo-inositol cotransporter	P53794	1
386	SFRP1	Secreted frizzled-related protein 1	Q8N474	1
387	SEPTIN2	Septin-2	Q15019	1
388	SDC4	Syndecan-4	P31431	1
389	SDC2	Syndecan-2	P34741	1
390	SDC1	Syndecan-1	P18827	1
391	S100B	Protein S100-B	P04271	1
392	S100A1	Protein S100-A1	P23297	1
393	RAC1	Ras-related C3 botulinum toxin substrate 1	P63000	1
394	PXN	Paxillin	P49023	1
395	PSME1	Proteasome activator complex subunit 1	Q06323	1
396	PSMB7	Proteasome subunit beta type-7	Q99436	1
397	PSMB6	Proteasome subunit beta type-6	P28072	1
398	PROC	Vitamin K-dependent protein C	P04070	1
399	PPBP	Platelet basic protein	P02775	1
400	PITPNA	Phosphatidylinositol transfer protein alpha isoform	Q00169	1
401	PDHB	Pyruvate dehydrogenase E1 component subunit beta, mitochondrial	P11177	1
402	PARK7	Parkinson disease protein 7	Q99497	1
403	NFKB1	Nuclear factor NF-kappa-B p105 subunit	P19838	1

Supplementary Table S2: Information on potential targets

No.	Gene name	Protein names	UniProt ID	Degree
404	NFATC3	Nuclear factor of activated T-cells, cytoplasmic 3	Q12968	1
405	MSN	Moesin	P26038	1
406	LPL	Lipoprotein lipase	P06858	1
407	LDHB	L-lactate dehydrogenase B chain	P07195	1
408	KRT18	Keratin, type I cytoskeletal 18	P05783	1
409	KLF4	Krueppel-like factor 4	O43474	1
410	ITGAX	Integrin alpha-X	P20702	1
411	IGSF10	Immunoglobulin superfamily member 10	Q6WRI0	1
412	HRG	Histidine-rich glycoprotein	P04196	1
413	GNS	N-acetylglucosamine-6-sulfatase	P15586	1
414	GATA4	Transcription factor GATA-4	P43694	1
415	FOLR1	Folate receptor alpha	P15328	1
416	FGF8	Fibroblast growth factor 8	P55075	1
417	FGF6	Fibroblast growth factor 6	P10767	1
418	FGF4	Fibroblast growth factor 4	P08620	1
419	FGF3	Fibroblast growth factor 3	P11487	1
420	FGF10	Fibroblast growth factor 10	O15520	1
421	FGA	Fibrinogen alpha chain [Cleaved into: Fibrinopeptide A; Fibrinogen alpha chain]	P02671	1
422	FCGR2A	Low affinity immunoglobulin gamma Fc region receptor II-a	P12318	1
423	FAS	Tumor necrosis factor receptor superfamily member 6	P25445	1
424	EGLN3	Prolyl hydroxylase EGLN3	Q9H6Z9	1
425	DES	Desmin	P17661	1
426	DDAH2	N	O95865	1
427	CSF3	Granulocyte colony-stimulating factor	P09919	1
428	CR1	Complement receptor type 1	P17927	1
429	COL1A1	Collagen alpha-1	P02452	1
430	COL18A1	Collagen alpha-1	P39060	1
431	CASP12	Inactive caspase-12	Q6UXS9	1
432	CAPG	Macrophage-capping protein	P40121	1
433	CACNA1E	Voltage-dependent R-type calcium channel subunit alpha-1E	Q15878	1
434	C5	Complement C5	P01031	1
435	BMPR1A	Bone morphogenetic protein receptor type-1A	P36894	1
436	ATP1B1	Sodium/potassium-transporting ATPase subunit beta-1	P05026	1
437	ARHGDI1	Rho GDP-dissociation inhibitor 1	P52565	1
438	APCS	Serum amyloid P-component	P02743	1
439	ANXA6	Annexin A6	P08133	1
440	AGT	Angiotensinogen	P01019	1
441	ADAMTS1	A disintegrin and metalloproteinase with thrombospondin motifs 1	Q9UHI8	1
442	ACTR3	Actin-related protein 3	P61158	1
443	ACKR3	Atypical chemokine receptor 3	P25106	1
444	THBS1	Thrombospondin-1	P07996	1
445	TFRC	Transferrin receptor protein 1	P02786	1
446	SELL	L-selectin	P14151	1
447	S100A6	Protein S100-A6	P06703	1

Supplementary Table S2: Information on potential targets

No.	Gene name	Protein names	UniProt ID	Degree
448	PSMB5	Proteasome subunit beta type-5	P28074	1
449	MAP2K2	Dual specificity mitogen-activated protein kinase kinase 2	P36507	1
450	ITGAM	Integrin alpha-M	P11215	1
451	HPSE	Heparanase	Q9Y251	1
452	GPT	Alanine aminotransferase 1	P24298	1
453	FGF5	Fibroblast growth factor 5	P12034	1
454	FGF19	Fibroblast growth factor 19	O95750	1
455	CXCL12	Stromal cell-derived factor 1	P48061	1
456	CDKN1B	Cyclin-dependent kinase inhibitor 1B	P46527	1
457	CCL11	Eotaxin	P51671	1
458	ACTA2	Actin, aortic smooth muscle	P62736	1
459	TGFB1	Transforming growth factor beta-1 proprotein [Cleaved into: Latency-associated peptide	P01137	1
460	MAPT	Microtubule-associated protein tau	P10636	1
461	FGF23	Fibroblast growth factor 23	Q9GZV9	1
462	C3	Complement C3	P01024	1
463	BMP6	Bone morphogenetic protein 6	P22004	1
464	FGF7	Fibroblast growth factor 7	P21781	1
465	MAPK3	Mitogen-activated protein kinase 3	P27361	1
466	HGF	Hepatocyte growth factor	P14210	1
467	FGFR4	Fibroblast growth factor receptor 4	P22455	1
468	F10	Coagulation factor X	P00742	1
469	HAMP	Hepcidin	P81172	1
470	PF4	Platelet factor 4	P02776	1
471	APP	Amyloid-beta precursor protein	P05067	1
472	FGFR2	Fibroblast growth factor receptor 2	P21802	1
473	EDN1	Endothelin-1	P05305	1
474	SERPINC1	Antithrombin-III	P01008	1
475	FGF1	Fibroblast growth factor 1	P05230	1
476	FGF2	Fibroblast growth factor 2	P09038	1
477	P2RY12	P2Y purinoceptor 12	Q9H244	1
478	F2RL3	Proteinase-activated receptor 4	Q96RI0	1
479	CGB3	Choriogonadotropin subunit beta 3	P0DN86	1
480	ITGA3	Integrin alpha-3	P26006	1
481	ITGA4	Integrin alpha-4	P13612	1
482	AVPR1B	Vasopressin V1b receptor	P47901	1
483	CHIA	Acidic mammalian chitinase	Q9BZP6	1
484	OPRL1	Nociceptin receptor	P41146	1
485	PSMB8	Proteasome subunit beta type-8	P28062	1
486	PSMB9	Proteasome subunit beta type-9	P28065	1
487	NPY4R	Neuropeptide Y receptor type 4	P50391	1
488	OXTR	Oxytocin receptor	P30559	1
489	FURIN	Furin	P09958	1
490	NPFFR2	Neuropeptide FF receptor 2	Q9Y5X5	1
491	NPFFR1	Neuropeptide FF receptor 1	Q9GZQ6	1
492	HDAC11	Histone deacetylase 11	Q96DB2	1

Supplementary Table S2: Information on potential targets

No.	Gene name	Protein names	UniProt ID	Degree
493	HDAC1	Histone deacetylase 1	Q13547	1
494	HDAC8	Histone deacetylase 8	Q9BY41	1
495	CBX7	Chromobox protein homolog 7	O95931	1
496	PRLR	Prolactin receptor	P16471	1
497	MEN1	Menin	O00255	1
498	ST3GAL1	CMP-N-acetylneuraminate-beta-galactosamide-alpha-2,3-sialyltransferase 1	Q11201	1
499	IDE	Insulin-degrading enzyme	P14735	1
500	MC3R	Melanocortin receptor 3	P41968	1
501	MC5R	Melanocortin receptor 5	P33032	1
502	C3AR1	C3a anaphylatoxin chemotactic receptor	Q16581	1
503	MC4R	Melanocortin receptor 4	P32245	1
504	DDO	D-aspartate oxidase	Q99489	1
505	CYP2A6	Cytochrome P450 2A6	P11509	1
506	PABPC1	Polyadenylate-binding protein 1	P11940	1
507	BRD3	Bromodomain-containing protein 3	Q15059	1
508	BRDT	Bromodomain testis-specific protein	Q58F21	1
509	BRD2	Bromodomain-containing protein 2	P25440	1
510	PNP	Purine nucleoside phosphorylase	P00491	1
511	GDA	Guanine deaminase	Q9Y2T3	1
512	PTK2B	Protein-tyrosine kinase 2-beta	Q14289	1
513	CDK4	Cyclin-dependent kinase 4	P11802	1
514	FLT4	Vascular endothelial growth factor receptor 3	P35916	1
515	GPR35	G-protein coupled receptor 35	Q9HC97	1
516	GNRHR	Gonadotropin-releasing hormone receptor	P30968	1
517	LSS	Lanosterol synthase	P48449	1
518	BLM	Bloom syndrome protein	P54132	1
519	TYMS	Thymidylate synthase	P04818	1
520	TRIM24	Transcription intermediary factor 1-alpha	O15164	1
521	SCARB1	Scavenger receptor class B member 1	Q8WTV0	1
522	ROCK1	Rho-associated protein kinase 1	Q13464	1
523	LIMK1	LIM domain kinase 1	P53667	1
524	CTSS	Cathepsin S	P25774	1
525	IDH1	Isocitrate dehydrogenase [NADP] cytoplasmic	O75874	1
526	APOB	Apolipoprotein B-100	P04114	1
527	MTTP	Microsomal triglyceride transfer protein large subunit	P55157	1
528	PANK3	Pantothenate kinase 3	Q9H999	1
529	PFKFB3	6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase 3	Q16875	1
530	DHFR	Dihydrofolate reductase	P00374	1
531	NLRP3	NACHT, LRR and PYD domains-containing protein 3	Q96P20	1
532	ACACB	Acetyl-CoA carboxylase 2	O00763	1
533	CALCRL	Calcitonin gene-related peptide type 1 receptor	Q16602	1
534	HRH2	Histamine H2 receptor	P25021	1
535	EPHA1	Ephrin type-A receptor 1	P21709	1
536	EPHB1	Ephrin type-B receptor 1	P54762	1
537	EPHA3	Ephrin type-A receptor 3	P29320	1

Supplementary Table S2: Information on potential targets

No.	Gene name	Protein names	UniProt ID	Degree
538	EPHB3	Ephrin type-B receptor 3	P54753	1
539	EPHA7	Ephrin type-A receptor 7	Q15375	1
540	EPHA6	Ephrin type-A receptor 6	Q9UF33	1
541	EPHA8	Ephrin type-A receptor 8	P29322	1
542	EPHA4	Ephrin type-A receptor 4	P54764	1
543	EPHA5	Ephrin type-A receptor 5	P54756	1
544	EPHB2	Ephrin type-B receptor 2	P29323	1
545	EPHA2	Ephrin type-A receptor 2	P29317	1
546	ERAP2	Endoplasmic reticulum aminopeptidase 2	Q6P179	1
547	GRK6	G protein-coupled receptor kinase 6	P43250	1
548	RPA1	Replication protein A 70 kDa DNA-binding subunit	P27694	1
549	ADH1A	Alcohol dehydrogenase 1A	P07327	1
550	ABAT	4-aminobutyrate aminotransferase, mitochondrial	P80404	1
551	ABCC2	Canalicular multispecific organic anion transporter 1	Q92887	1
552	MAP2K4	Dual specificity mitogen-activated protein kinase kinase 4	P45985	1
553	PSMG1	Proteasome assembly chaperone 1	O95456	1
554	ADCYAP1	Pituitary adenylate cyclase-activating polypeptide	P18509	1
555	CASP1	Caspase-1	P29466	1
556	APOD	Apolipoprotein D	P05090	1
557	NOX5	NADPH oxidase 5	Q96PH1	1
558	TDRD7	Tudor domain-containing protein 7	Q8NHU6	1
559	NFATC1	Nuclear factor of activated T-cells, cytoplasmic 1	O95644	1
560	CYCS	Cytochrome c	P99999	1
561	FOSL2	Fos-related antigen 2	P15408	1
562	FOSL1	Fos-related antigen 1	P15407	1
563	PRKCD	Protein kinase C delta type	Q05655	1
564	TEP1	Telomerase protein component 1	Q99973	1
565	FASLG	Tumor necrosis factor ligand superfamily member 6	P48023	1
566	ADCY2	Adenylate cyclase type 2	Q08462	1
567	NUF2	Kinetochore protein Nuf2	Q9BZD4	1
568	TYR	Tyrosinase	P14679	1
569	MDM2	E3 ubiquitin-protein ligase Mdm2	Q00987	1
570	HSD3B1	3 beta-hydroxysteroid dehydrogenase/Delta 5-->4-isomerase type 1	P14060	1
571	HSD3B2	3 beta-hydroxysteroid dehydrogenase/Delta 5-->4-isomerase type 2	P26439	1
572	ATP5F1B	ATP synthase subunit beta, mitochondrial	P06576	1
573	RXRB	Retinoic acid receptor RXR-beta	P28702	1
574	ADORA1	Adenosine receptor A1	P30542	1
575	PDE5A	cGMP-specific 3',5'-cyclic phosphodiesterase	O76074	1
576	CD38	ADP-ribosyl cyclase/cyclic ADP-ribose hydrolase 1	P28907	1
577	RPS6KA3	Ribosomal protein S6 kinase alpha-3	P51812	1
578	XDH	Xanthine dehydrogenase/oxidase [Includes: Xanthine dehydrogenase	P47989	1
579	CA2	Carbonic anhydrase 2	P00918	1
580	NOX4	NADPH oxidase 4	Q9NPH5	1
581	CA4	Carbonic anhydrase 4	P22748	1

Supplementary Table S2: Information on potential targets

No.	Gene name	Protein names	UniProt ID	Degree
582	CA7	Carbonic anhydrase 7	P43166	1
583	AKR1B1	Aldo-keto reductase family 1 member B1	P15121	1
584	NMUR2	Neuromedin-U receptor 2	Q9GZQ4	1
585	CES2	Cocaine esterase	O00748	1
586	ABCG2	Broad substrate specificity ATP-binding cassette transporter ABCG2	Q9UNQ0	1
587	MERTK	Tyrosine-protein kinase Mer	Q12866	1
588	PLA2G10	Group 10 secretory phospholipase A2	O15496	1
589	ELANE	Neutrophil elastase	P08246	1
590	CES1	Liver carboxylesterase 1	P23141	1
591	BCHE	Cholinesterase	P06276	1
592	DCTPP1	dCTP pyrophosphatase 1	Q9H773	1
593	TGM2	Protein-glutamine gamma-glutamyltransferase 2	P21980	1
594	PTPRC	Receptor-type tyrosine-protein phosphatase C	P08575	1
595	PDE7B	cAMP-specific 3',5'-cyclic phosphodiesterase 7B	Q9NP56	1
596	PDE4D	cAMP-specific 3',5'-cyclic phosphodiesterase 4D	Q08499	1
597	PDE4B	cAMP-specific 3',5'-cyclic phosphodiesterase 4B	Q07343	1
598	PDE7A	High affinity cAMP-specific 3',5'-cyclic phosphodiesterase 7A	Q13946	1
599	MMP8	Neutrophil collagenase	P22894	1
600	MMP13	Collagenase 3	P45452	1
601	CACNA1S	Voltage-dependent L-type calcium channel subunit alpha-1S	Q13698	1
602	MMP10	Stromelysin-2	P09238	1
603	SLC29A1	Equilibrative nucleoside transporter 1	Q99808	1
604	IMPDH1	Inosine-5'-monophosphate dehydrogenase 1	P20839	1
605	MAPK15	Mitogen-activated protein kinase 15	Q8TD08	1
606	CDK3	Cyclin-dependent kinase 3	Q00526	1
607	CLK3	Dual specificity protein kinase CLK3	P49761	1
608	TTK	Dual specificity protein kinase TTK	P33981	1
609	STK16	Serine/threonine-protein kinase 16	O75716	1
610	PLK4	Serine/threonine-protein kinase PLK4	O00444	1
611	CDK9	Cyclin-dependent kinase 9	P50750	1
612	ACVRL1	Serine/threonine-protein kinase receptor R3	P37023	1
613	MAP3K14	Mitogen-activated protein kinase kinase kinase 14	Q99558	1
614	PRF1	Perforin-1	P14222	1
615	CCNT1	Cyclin-T1	O60563	1
616	F9	Coagulation factor IX	P00740	1
617	ABCB11	Bile salt export pump	O95342	1
618	CYP2C9	Cytochrome P450 2C9	P11712	1
619	RHO	Rhodopsin	P08100	1
620	PSP-I	porcine seminal protein I	396818	1

Supplementary Table S3: The Drug-Disease targets

No.	Gene name	Protein names	UniProt ID	Degree
1	PTGS2	Prostaglandin G/H synthase 2	P35354	103
2	NCOA2	Nuclear receptor coactivator 2	Q15596	86
3	PGR	Progesterone receptor	P06401	75
4	PTGS1	Prostaglandin G/H synthase 1	P23219	70
5	PPARG	Peroxisome proliferator-activated receptor gamma	P37231	49
6	SCN5A	Sodium channel protein type 5 subunit alpha	Q14524	46
7	ADRB2	Beta-2 adrenergic receptor	P07550	45
8	NR3C2	Mineralocorticoid receptor	P08235	44
9	GABRA1	Gamma-aminobutyric acid receptor subunit alpha-1	P14867	44
10	PRSS1	Trypsin-1	P07477	44
11	RXRA	Retinoic acid receptor RXR-alpha	P19793	40
12	CHRM1	Muscarinic acetylcholine receptor M1	P11229	38
13	AR	Androgen receptor	P10275	38
14	ACHE	Acetylcholinesterase	P22303	36
15	NOS2	Nitric oxide synthase, inducible	P35228	34
16	ADRA1B	Alpha-1B adrenergic receptor	P35368	32
17	KCNH2	Potassium voltage-gated channel subfamily H member 2	Q12809	32
18	CHRM3	Muscarinic acetylcholine receptor M3	P20309	29
19	CHRM2	Muscarinic acetylcholine receptor M2	P08172	28
20	ESR2	Estrogen receptor beta	Q92731	28
21	CASP3	Caspase-3	P42574	27
22	ESR1	Estrogen receptor	P03372	26
23	BCL2	Apoptosis regulator Bcl-2	P10415	26
24	F7	Coagulation factor VII	P08709	25
25	JUN	Transcription factor AP-1	P05412	23
26	BAX	Apoptosis regulator BAX	Q07812	23
27	GSK3B	Glycogen synthase kinase-3 beta	P49841	22
28	RELA	Transcription factor p65	Q04206	22
29	MAOB	Amine oxidase [flavin-containing] B	P27338	22
30	SLC6A2	Sodium-dependent noradrenaline transporter	P23975	20
31	ADRA1A	Alpha-1A adrenergic receptor	P35348	19
32	NCOA1	Nuclear receptor coactivator 1	Q15788	19
33	MMP9	Matrix metalloproteinase-9	P14780	19
34	PLAU	Urokinase-type plasminogen activator	P00749	19
35	AKT1	RAC-alpha serine/threonine-protein kinase	P31749	19
36	PPARD	Peroxisome proliferator-activated receptor delta	Q03181	18
37	TNF	Tumor necrosis factor	P01375	18
38	MMP1	Interstitial collagenase	P03956	17
39	CASP9	Caspase-9	P55211	17
40	NR3C1	Glucocorticoid receptor	P04150	16
41	CHEK1	Serine/threonine-protein kinase Chk1	Q14757	16
42	PPARA	Peroxisome proliferator-activated receptor alpha	Q07869	16
43	INSR	Insulin receptor	P06213	16
44	NR1I3	Nuclear receptor subfamily 1 group I member 3	Q14994	16
45	MPO	Myeloperoxidase	P05164	16

Supplementary Table S3: The Drug-Disease targets

No.	Gene name	Protein names	UniProt ID	Degree
46	HMOX1	Heme oxygenase 1	P09601	16
47	CASP8	Caspase-8	Q14790	16
48	SLC6A4	Sodium-dependent serotonin transporter	P31645	15
49	SLC2A4	Solute carrier family 2, facilitated glucose transporter member 4	P14672	15
50	GSTP1	Glutathione S-transferase P	P09211	15
51	TP53	Cellular tumor antigen p53	P04637	15
52	IL6	Interleukin-6	P05231	15
53	SERPINA6	Corticosteroid-binding globulin	P08185	14
54	SLC6A3	Sodium-dependent dopamine transporter	Q01959	14
55	OPRM1	Mu-type opioid receptor	P35372	14
56	GSTM2	Glutathione S-transferase Mu 2	P28161	14
57	PON1	Serum paraoxonase/arylesterase 1	P27169	14
58	AHR	Aryl hydrocarbon receptor	P35869	14
59	NR1I2	Nuclear receptor subfamily 1 group I member 2	O75469	14
60	ICAM1	Intercellular adhesion molecule 1	P05362	14
61	CYP1A2	Cytochrome P450 1A2	P05177	14
62	CYP3A4	Cytochrome P450 3A4	P08684	14
63	PRKCA	Protein kinase C alpha type	P17252	14
64	AHSA1	Activator of 90 kDa heat shock protein ATPase homolog 1	O95433	14
65	CDKN1A	Cyclin-dependent kinase inhibitor 1	P38936	14
66	VEGFA	Vascular endothelial growth factor A	P15692	14
67	AKR1B10	Aldo-keto reductase family 1 member B10	O60218	13
68	ADRB1	Beta-1 adrenergic receptor	P08588	13
69	ADRA2A	Alpha-2A adrenergic receptor	P08913	13
70	ADH1C	Alcohol dehydrogenase 1C	P00326	13
71	CCNA2	Cyclin-A2	P20248	13
72	GSTM1	Glutathione S-transferase Mu 1	P09488	13
73	DIO1	Type I iodothyronine deiodinase	P49895	13
74	PSMD3	26S proteasome non-ATPase regulatory subunit 3	O43242	13
75	HAS2	Hyaluronan synthase 2	Q92819	13
76	CYP1B1	Cytochrome P450 1B1	Q16678	13
77	VCAM1	Vascular cell adhesion protein 1	P19320	13
78	SELE	E-selectin	P16581	13
79	CYP1A1	Cytochrome P450 1A1	P04798	13
80	STAT1	Signal transducer and activator of transcription 1-alpha/beta	P42224	13
81	EGFR	Epidermal growth factor receptor	P00533	13
82	PTGES	Prostaglandin E synthase	O14684	12
83	BACE1	Beta-secretase 1	P56817	12
84	MAPK14	Mitogen-activated protein kinase 14	Q16539	12
85	ODC1	Ornithine decarboxylase	P11926	12
86	MAPK1	Mitogen-activated protein kinase 1	P28482	12
87	MMP2	72 kDa type IV collagenase	P08253	12
88	CCND1	G1/S-specific cyclin-D1	P24385	12
89	KDR	Vascular endothelial growth factor receptor 2	P35968	11

Supplementary Table S3: The Drug-Disease targets

No.	Gene name	Protein names	UniProt ID	Degree
90	CD40LG	CD40 ligand	P29965	11
91	NCF1	Neutrophil cytosol factor 1	P14598	11
92	TOP2A	DNA topoisomerase 2-alpha	P11388	11
93	IFNG	Interferon gamma	P01579	11
94	SERPINE1	Plasminogen activator inhibitor 1	P05121	11
95	CCNB1	G2/mitotic-specific cyclin-B1	P14635	11
96	IL2	Interleukin-2	P60568	11
97	CXCL8	Interleukin-8	P10145	11
98	CCL2	C-C motif chemokine 2	P13500	11
99	MYC	Myc proto-oncogene protein	P01106	11
100	ERBB2	Receptor tyrosine-protein kinase erbB-2	P04626	11
101	HIF1A	Hypoxia-inducible factor 1-alpha	Q16665	11
102	NFKBIA	NF-kappa-B inhibitor alpha	P25963	11
103	RB1	Retinoblastoma-associated protein	P06400	11
104	EGF	Pro-epidermal growth factor	P01133	11
105	FOS	Proto-oncogene c-Fos	P01100	11
106	GRM5	Metabotropic glutamate receptor 5	P41594	10
107	IGF2	Insulin-like growth factor II	P01344	10
108	CTSD	Cathepsin D	P07339	10
109	E2F1	Transcription factor E2F1	Q01094	10
110	CXCL10	C-X-C motif chemokine 10	P02778	10
111	CXCL2	C-X-C motif chemokine 2	P19875	10
112	PARP1	Poly [ADP-ribose] polymerase 1	P09874	10
113	NFE2L2	Nuclear factor erythroid 2-related factor 2	Q16236	10
114	PLAT	Tissue-type plasminogen activator	P00750	10
115	NOS3	Nitric oxide synthase, endothelial	P29474	10
116	BIRC5	Baculoviral IAP repeat-containing protein 5	O15392	10
117	PRKCB	Protein kinase C beta type	P05771	10
118	PTGER3	Prostaglandin E2 receptor EP3 subtype	P43115	10
119	IL1B	Interleukin-1 beta	P01584	10
120	GJA1	Gap junction alpha-1 protein	P17302	10
121	F3	Tissue factor	P13726	10
122	CAV1	Caveolin-1	Q03135	10
123	ACACA	Acetyl-CoA carboxylase 1	Q13085	10
124	SOD1	Superoxide dismutase [Cu-Zn]	P00441	10
125	TOP1	DNA topoisomerase 1	P11387	10
126	IL10	Interleukin-10	P22301	10
127	EIF6	Eukaryotic translation initiation factor 6	P56537	10
128	BCL2L1	Bcl-2-like protein 1	Q07817	10
129	ADRA1D	Alpha-1D adrenergic receptor	P25100	9
130	CHRM5	Muscarinic acetylcholine receptor M5	P08912	9
131	MET	Hepatocyte growth factor receptor	P08581	9
132	RASA1	Ras GTPase-activating protein 1	P20936	9
133	HK2	Hexokinase-2	P52789	9
134	NPEPPS	Puromycin-sensitive aminopeptidase	P55786	9

Supplementary Table S3: The Drug-Disease targets

No.	Gene name	Protein names	UniProt ID	Degree
135	PCOLCE	Procollagen C-endopeptidase enhancer 1	Q15113	9
136	ERBB3	Receptor tyrosine-protein kinase erbB-3	P21860	9
137	IRF1	Interferon regulatory factor 1	P10914	9
138	IGFBP3	Insulin-like growth factor-binding protein 3	P17936	9
139	ACP3	Prostatic acid phosphatase	P15309	9
140	E2F2	Transcription factor E2F2	Q14209	9
141	RASSF1	Ras association domain-containing protein 1	Q9NS23	9
142	RUNX2	Runt-related transcription factor 2	Q13950	9
143	SPP1	Osteopontin	P10451	9
144	CHUK	Inhibitor of nuclear factor kappa-B kinase subunit alpha	O15111	9
145	HSF1	Heat shock factor protein 1	Q00613	9
146	CLDN4	Claudin-4	O14493	9
147	CHEK2	Serine/threonine-protein kinase Chk2	O96017	9
148	DCAF5	DDB1- and CUL4-associated factor 5	Q96JK2	9
149	CXCL11	C-X-C motif chemokine 11	O14625	9
150	IL1A	Interleukin-1 alpha	P01583	9
151	THBD	Thrombomodulin	P07204	9
152	HSPB1	Heat shock protein beta-1	P04792	9
153	DUOX2	Dual oxidase 2	Q9NRD8	9
154	RUNX1T1	Protein CBFA2T1	Q06455	9
155	RAF1	RAF proto-oncogene serine/threonine-protein kinase	P04049	9
156	POR	NADPH--cytochrome P450 reductase	P16435	9
157	ELK1	ETS domain-containing protein Elk-1	P19419	9
158	MMP3	Stromelysin-1	P08254	9
159	OPRD1	Delta-type opioid receptor	P41143	8
160	ANPEP	Aminopeptidase N	P15144	8
161	CTSK	Cathepsin K	P43235	7
162	F2R	Proteinase-activated receptor 1	P25116	7
163	RORA	Nuclear receptor ROR-alpha	P35398	7
164	JAK2	Tyrosine-protein kinase JAK2	O60674	7
165	MTOR	Serine/threonine-protein kinase mTOR	P42345	7
166	LTA4H	Leukotriene A-4 hydrolase	P09960	7
167	GPBAR1	G-protein coupled bile acid receptor 1	Q8TDU6	6
168	FFAR1	Free fatty acid receptor 1	O14842	6
169	HRH3	Histamine H3 receptor	Q9Y5N1	6
170	MCL1	Induced myeloid leukemia cell differentiation protein Mcl-1	Q07820	6
171	ADRA2C	Alpha-2C adrenergic receptor	P18825	6
172	ADRA2B	Alpha-2B adrenergic receptor	P18089	6
173	G6PD	Glucose-6-phosphate 1-dehydrogenase	P11413	6
174	KDM4C	Lysine-specific demethylase 4C	Q9H3R0	6
175	GRM7	Metabotropic glutamate receptor 7	Q14831	6
176	GRM8	Metabotropic glutamate receptor 8	O00222	6
177	GRM4	Metabotropic glutamate receptor 4	Q14833	6
178	CTRB1	Chymotrypsinogen B	P17538	6
179	MAOA	Amine oxidase [flavin-containing] A	P21397	6

Supplementary Table S3: The Drug-Disease targets

No.	Gene name	Protein names	UniProt ID	Degree
180	MAP2	Microtubule-associated protein 2	P11137	6
181	HSD17B1	Estradiol 17-beta-dehydrogenase 1	P14061	5
182	UGT2B7	UDP-glucuronosyltransferase 2B7	P16662	5
183	STS	Steryl-sulfatase	P08842	5
184	CDK1	Cyclin-dependent kinase 1	P06493	5
185	HRH4	Histamine H4 receptor	Q9H3N8	5
186	HDAC3	Histone deacetylase 3	O15379	5
187	PLG	Plasminogen	P00747	5
188	EGLN1	Egl nine homolog 1	Q9GZT9	5
189	TERT	Telomerase reverse transcriptase	O14746	5
190	MGLL	Monoglyceride lipase	Q99685	5
191	OAT	Ornithine aminotransferase, mitochondrial	P04181	5
192	MAP2K1	Dual specificity mitogen-activated protein kinase kinase 1	Q02750	5
193	REN	Renin	P00797	5
194	POLB	DNA polymerase beta	P06746	5
195	PEPD	Xaa-Pro dipeptidase	P12955	5
196	SLC1A2	Excitatory amino acid transporter 2	P43004	5
197	GRM6	Metabotropic glutamate receptor 6	O15303	5
198	GRM1	Metabotropic glutamate receptor 1	Q13255	5
199	GRM3	Metabotropic glutamate receptor 3	Q14832	5
200	IKBKB	Inhibitor of nuclear factor kappa-B kinase subunit beta	O14920	5
201	JAK1	Tyrosine-protein kinase JAK1	P23458	4
202	ROCK2	Rho-associated protein kinase 2	O75116	4
203	CD81	CD81 antigen	P60033	4
204	KMO	Kynurenine 3-monooxygenase	O15229	4
205	PLA2G4A	Cytosolic phospholipase A2	P47712	4
206	HTR3A	5-hydroxytryptamine receptor 3A	P46098	4
207	CRHR1	Corticotropin-releasing factor receptor 1	P34998	4
208	GLUL	Glutamine synthetase	P15104	4
209	IRAK4	Interleukin-1 receptor-associated kinase 4	Q9NWZ3	4
210	FGFR1	Fibroblast growth factor receptor 1	P11362	4
211	CDK2	Cyclin-dependent kinase 2	P24941	4
212	P2RX3	P2X purinoceptor 3	P56373	4
213	SYK	Tyrosine-protein kinase SYK	P43405	4
214	SLPI	Antileukoproteinase	P03973	4
215	AKR1C3	Aldo-keto reductase family 1 member C3	P42330	4
216	PPP3CA	Serine/threonine-protein phosphatase 2B catalytic subunit alpha isoform	Q08209	4
217	MAPK8	Mitogen-activated protein kinase 8	P45983	4
218	GRIA2	Glutamate receptor 2	P42262	4
219	SLC22A2	Solute carrier family 22 member 2	O15244	3
220	ADCY10	Adenylate cyclase type 10	Q96PN6	3
221	GP1R	G-protein coupled estrogen receptor 1	Q99527	3
222	HLCS	Biotin--protein ligase	P50747	3
223	PTK2	Focal adhesion kinase 1	Q05397	3
224	SELP	P-selectin	P16109	3

Supplementary Table S3: The Drug-Disease targets

No.	Gene name	Protein names	UniProt ID	Degree
225	HDAC6	Histone deacetylase 6	Q9UBN7	3
226	TRPA1	Transient receptor potential cation channel subfamily A member 1	O75762	3
227	P2RX7	P2X purinoceptor 7	Q99572	3
228	ALK	ALK tyrosine kinase receptor	Q9UM73	3
229	LTB4R	Leukotriene B4 receptor 1	Q15722	3
230	MMP14	Matrix metalloproteinase-14	P50281	3
231	CYP26A1	Cytochrome P450 26A1	O43174	3
232	NPY5R	Neuropeptide Y receptor type 5	Q15761	3
233	MAP3K5	Mitogen-activated protein kinase kinase kinase 5	Q99683	3
234	CPT1A	Carnitine O-palmitoyltransferase 1, liver isoform	P50416	3
235	SLC5A1	Sodium/glucose cotransporter 1	P13866	3
236	RARA	Retinoic acid receptor alpha	P10276	3
237	RARB	Retinoic acid receptor beta	P10826	3
238	RARG	Retinoic acid receptor gamma	P13631	3
239	CNR2	Cannabinoid receptor 2	P34972	3
240	ACP1	Low molecular weight phosphotyrosine protein phosphatase	P24666	3
241	RORC	Nuclear receptor ROR-gamma	P51449	3
242	ACE	Angiotensin-converting enzyme	P12821	3
243	BBOX1	Gamma-butyrobetaine dioxygenase	O75936	3
244	TBXA2R	Thromboxane A2 receptor	P21731	3
245	F2	Prothrombin	P00734	3
246	ALPL	Alkaline phosphatase, tissue-nonspecific isozyme	P05186	3
247	HRH1	Histamine H1 receptor	P35367	3
248	PDE10A	cAMP and cAMP-inhibited cGMP 3',5'-cyclic phosphodiesterase 10A	Q9Y233	3
249	MAPKAPK2	MAP kinase-activated protein kinase 2	P49137	3
250	IMPDH2	Inosine-5'-monophosphate dehydrogenase 2	P12268	3
251	DYRK1B	Dual specificity tyrosine-phosphorylation-regulated kinase 1B	Q9Y463	3
252	GSK3A	Glycogen synthase kinase-3 alpha	P49840	3
253	SLC5A2	Sodium/glucose cotransporter 2	P31639	3
254	SORD	Sorbitol dehydrogenase	Q00796	3
255	CCR1	C-C chemokine receptor type 1	P32246	3
256	AGTR1	Type-1 angiotensin II receptor	P30556	3
257	FLT1	Vascular endothelial growth factor receptor 1	P17948	3
258	PGK1	Phosphoglycerate kinase 1	P00558	3
259	CPB1	Carboxypeptidase B	P15086	3
260	TAAR1	Trace amine-associated receptor 1	Q96RJ0	3
261	FASN	Fatty acid synthase	P49327	3
262	CCR5	C-C chemokine receptor type 5	P51681	2
263	ADRB3	Beta-3 adrenergic receptor	P13945	2
264	AHCY	Adenosylhomocysteinase	P23526	2
265	MAP3K8	Mitogen-activated protein kinase kinase kinase 8	P41279	2
266	PARP2	Poly [ADP-ribose] polymerase 2	Q9UGN5	2
267	TK1	Thymidine kinase, cytosolic	P04183	2

Supplementary Table S3: The Drug-Disease targets

No.	Gene name	Protein names	UniProt ID	Degree
268	RPS6KA5	Ribosomal protein S6 kinase alpha-5	O75582	2
269	TKT	Transketolase	P29401	2
270	CFTR	Cystic fibrosis transmembrane conductance regulator	P13569	2
271	ECE1	Endothelin-converting enzyme 1	P42892	2
272	GZMB	Granzyme B	P10144	2
273	ABCC1	Multidrug resistance-associated protein 1	P33527	2
274	CRP	C-reactive protein [Cleaved into: C-reactive protein	P02741	2
275	PDGFB	Platelet-derived growth factor subunit B	P01127	2
276	CXCR4	C-X-C chemokine receptor type 4	P61073	2
277	HDAC2	Histone deacetylase 2	Q92769	2
278	EPHX1	Epoxide hydrolase 1	P07099	2
279	BRD4	Bromodomain-containing protein 4	O60885	2
280	HCAR2	Hydroxycarboxylic acid receptor 2	Q8TDS4	2
281	JAK3	Tyrosine-protein kinase JAK3	P52333	2
282	PDGFRA	Platelet-derived growth factor receptor alpha	P16234	2
283	PDGFRB	Platelet-derived growth factor receptor beta	P09619	2
284	GCGR	Glucagon receptor	P47871	2
285	FGFR3	Fibroblast growth factor receptor 3	P22607	2
286	LIMK2	LIM domain kinase 2	P53671	2
287	PREP	Prolyl endopeptidase	P48147	2
288	CNR1	Cannabinoid receptor 1	P21554	2
289	SCD	Acyl-CoA desaturase	O00767	2
290	FABP1	Fatty acid-binding protein, liver	P07148	2
291	KYNU	Kynureninase	Q16719	2
292	MIF	Macrophage migration inhibitory factor	P14174	2
293	MME	Neprilysin	P08473	2
294	CAT	Catalase	P04040	2
295	FN1	Fibronectin	P02751	2
296	PCNA	Proliferating cell nuclear antigen	P12004	2
297	IL4	Interleukin-4	P05112	2
298	NQO2	Ribosyldihyronicotinamide dehydrogenase [quinone]	P16083	2
299	ALOX5	Polyunsaturated fatty acid 5-lipoxygenase	P09917	2
300	CASP7	Caspase-7	P55210	2
301	CTNNB1	Catenin beta-1	P35222	2
302	RNPEP	Aminopeptidase B	Q9H4A4	2
303	PLK1	Serine/threonine-protein kinase PLK1	P53350	2
304	MAPK7	Mitogen-activated protein kinase 7	Q13164	2
305	CDK7	Cyclin-dependent kinase 7	P50613	2
306	MCHR1	Melanin-concentrating hormone receptor 1	Q99705	2
307	GRB2	Growth factor receptor-bound protein 2	P62993	2
308	TBXAS1	Thromboxane-A synthase	P24557	2
309	TYRO3	Tyrosine-protein kinase receptor TYRO3	Q06418	2
310	AXL	Tyrosine-protein kinase receptor UFO	P30530	2
311	SMO	Smoothed homolog	Q99835	2
312	AVPR1A	Vasopressin V1a receptor	P37288	2

Supplementary Table S3: The Drug-Disease targets

No.	Gene name	Protein names	UniProt ID	Degree
313	CFD	Complement factor D	P00746	2
314	OLR1	Oxidized low-density lipoprotein receptor 1	P78380	2
315	PYGM	Glycogen phosphorylase, muscle form	P11217	2
316	HSP90AA1	Heat shock protein HSP 90-alpha	P07900	1
317	CYP2C19	Cytochrome P450 2C19	P33261	1
318	ERN1	Serine/threonine-protein kinase/endoribonuclease IRE1	O75460	1
319	HDAC7	Histone deacetylase 7	Q8WUI4	1
320	HDAC9	Histone deacetylase 9	Q9UKV0	1
321	HDAC5	Histone deacetylase 5	Q9UQL6	1
322	STAT6	Signal transducer and activator of transcription 6	P42226	1
323	HDAC4	Histone deacetylase 4	P56524	1
324	HSP90AB1	Heat shock protein HSP 90-beta	P08238	1
325	ROS1	Proto-oncogene tyrosine-protein kinase ROS	P08922	1
326	EP300	Histone acetyltransferase p300	Q09472	1
327	CCR3	C-C chemokine receptor type 3	P51677	1
328	MMP16	Matrix metalloproteinase-16	P51512	1
329	ADK	Adenosine kinase	P55263	1
330	CYP27A1	Sterol 26-hydroxylase, mitochondrial	Q02318	1
331	TTR	Transthyretin	P02766	1
332	MAP3K7	Mitogen-activated protein kinase kinase kinase 7	O43318	1
333	KCNK2	Potassium channel subfamily K member 2	O95069	1
334	PTGES2	Prostaglandin E synthase 2	Q9H7Z7	1
335	TNFRSF1B	Tumor necrosis factor receptor superfamily member 1B	P20333	1
336	KCNK10	Potassium channel subfamily K member 10	P57789	1
337	ABCC4	Multidrug resistance-associated protein 4	O15439	1
338	ABCG1	ATP-binding cassette sub-family G member 1	P45844	1
339	CETP	Cholesteryl ester transfer protein	P11597	1
340	C1R	Complement C1r subcomponent	P00736	1
341	UCP2	Mitochondrial uncoupling protein 2	P55851	1
342	ALDH3A1	Aldehyde dehydrogenase, dimeric NADP-preferring	P30838	1
343	ALDH2	Aldehyde dehydrogenase, mitochondrial	P05091	1
344	GLB1	Beta-galactosidase	P16278	1
345	PECAM1	Platelet endothelial cell adhesion molecule	P16284	1
346	TNFRSF1A	Tumor necrosis factor receptor superfamily member 1A	P19438	1
347	RXRG	Retinoic acid receptor RXR-gamma	P48443	1
348	TRPV1	Transient receptor potential cation channel subfamily V member 1	Q8NER1	1
349	PTPRA	Receptor-type tyrosine-protein phosphatase alpha	P18433	1
350	THRA	Thyroid hormone receptor alpha	P10827	1
351	BHMT2	S-methylmethionine-homocysteine S-methyltransferase BHMT2	Q9H2M3	1
352	HNF4A	Hepatocyte nuclear factor 4-alpha	P41235	1
353	RORB	Nuclear receptor ROR-beta	Q92753	1
354	GLRA1	Glycine receptor subunit alpha-1	P23415	1
355	CYP26B1	Cytochrome P450 26B1	Q9NR63	1
356	NROB2	Nuclear receptor subfamily 0 group B member 2	Q15466	1

Supplementary Table S3: The Drug-Disease targets

No.	Gene name	Protein names	UniProt ID	Degree
357	GSTK1	Glutathione S-transferase kappa 1	Q9Y2Q3	1
358	HAO1	Hydroxyacid oxidase 1	Q9UJM8	1
359	CPA1	Carboxypeptidase A1	P15085	1
360	ACLY	ATP-citrate synthase	P53396	1
361	SLC13A5	Solute carrier family 13 member 5	Q86YT5	1
362	TAGLN2	Transgelin-2	P37802	1
363	SULF1	Extracellular sulfatase Sulf-1	Q8IWU6	1
364	STIP1	Stress-induced-phosphoprotein 1	P31948	1
365	SLK	STE20-like serine/threonine-protein kinase	Q9H2G2	1
366	SLC5A3	Sodium/myo-inositol cotransporter	P53794	1
367	SFRP1	Secreted frizzled-related protein 1	Q8N474	1
368	SDC4	Syndecan-4	P31431	1
369	SDC2	Syndecan-2	P34741	1
370	SDC1	Syndecan-1	P18827	1
371	S100B	Protein S100-B	P04271	1
372	S100A1	Protein S100-A1	P23297	1
373	RAC1	Ras-related C3 botulinum toxin substrate 1	P63000	1
374	PXN	Paxillin	P49023	1
375	PSME1	Proteasome activator complex subunit 1	Q06323	1
376	PSMB7	Proteasome subunit beta type-7	Q99436	1
377	PROC	Vitamin K-dependent protein C	P04070	1
378	PPBP	Platelet basic protein	P02775	1
379	PITPNA	Phosphatidylinositol transfer protein alpha isoform	Q00169	1
380	PDHB	Pyruvate dehydrogenase E1 component subunit beta, mitochondrial	P11177	1
381	PARK7	Parkinson disease protein 7	Q99497	1
382	NFKB1	Nuclear factor NF-kappa-B p105 subunit	P19838	1
383	NFATC3	Nuclear factor of activated T-cells, cytoplasmic 3	Q12968	1
384	MSN	Moesin	P26038	1
385	LPL	Lipoprotein lipase	P06858	1
386	LDHB	L-lactate dehydrogenase B chain	P07195	1
387	KRT18	Keratin, type I cytoskeletal 18	P05783	1
388	KLF4	Krueppel-like factor 4	O43474	1
389	ITGAX	Integrin alpha-X	P20702	1
390	HRG	Histidine-rich glycoprotein	P04196	1
391	GATA4	Transcription factor GATA-4	P43694	1
392	FOLR1	Folate receptor alpha	P15328	1
393	FGF8	Fibroblast growth factor 8	P55075	1
394	FGF4	Fibroblast growth factor 4	P08620	1
395	FGF3	Fibroblast growth factor 3	P11487	1
396	FGF10	Fibroblast growth factor 10	O15520	1
397	FGA	Fibrinogen alpha chain [Cleaved into: Fibrinopeptide A; Fibrinogen alpha chain]	P02671	1
398	FCGR2A	Low affinity immunoglobulin gamma Fc region receptor II-a	P12318	1
399	FAS	Tumor necrosis factor receptor superfamily member 6	P25445	1
400	EGLN3	Prolyl hydroxylase EGLN3	Q9H6Z9	1

Supplementary Table S3: The Drug-Disease targets

No.	Gene name	Protein names	UniProt ID	Degree
401	DES	Desmin	P17661	1
402	DDAH2	N	O95865	1
403	CSF3	Granulocyte colony-stimulating factor	P09919	1
404	CR1	Complement receptor type 1	P17927	1
405	COL1A1	Collagen alpha-1	P02452	1
406	COL18A1	Collagen alpha-1	P39060	1
407	CASP12	Inactive caspase-12	Q6UXS9	1
408	CACNA1E	Voltage-dependent R-type calcium channel subunit alpha-1E	Q15878	1
409	C5	Complement C5	P01031	1
410	BMPR1A	Bone morphogenetic protein receptor type-1A	P36894	1
411	ATP1B1	Sodium/potassium-transporting ATPase subunit beta-1	P05026	1
412	APCS	Serum amyloid P-component	P02743	1
413	ANXA6	Annexin A6	P08133	1
414	AGT	Angiotensinogen	P01019	1
415	ADAMTS1	A disintegrin and metalloproteinase with thrombospondin motifs 1	Q9UHI8	1
416	ACKR3	Atypical chemokine receptor 3	P25106	1
417	THBS1	Thrombospondin-1	P07996	1
418	TFRC	Transferrin receptor protein 1	P02786	1
419	SELL	L-selectin	P14151	1
420	S100A6	Protein S100-A6	P06703	1
421	PSMB5	Proteasome subunit beta type-5	P28074	1
422	MAP2K2	Dual specificity mitogen-activated protein kinase kinase 2	P36507	1
423	ITGAM	Integrin alpha-M	P11215	1
424	HPSE	Heparanase	Q9Y251	1
425	GPT	Alanine aminotransferase 1	P24298	1
426	FGF5	Fibroblast growth factor 5	P12034	1
427	FGF19	Fibroblast growth factor 19	O95750	1
428	CXCL12	Stromal cell-derived factor 1	P48061	1
429	CDKN1B	Cyclin-dependent kinase inhibitor 1B	P46527	1
430	CCL11	Eotaxin	P51671	1
431	ACTA2	Actin, aortic smooth muscle	P62736	1
432	TGFB1	Transforming growth factor beta-1 proprotein [Cleaved into: Latency-associated peptide	P01137	1
433	MAPT	Microtubule-associated protein tau	P10636	1
434	FGF23	Fibroblast growth factor 23	Q9GZV9	1
435	C3	Complement C3	P01024	1
436	BMP6	Bone morphogenetic protein 6	P22004	1
437	FGF7	Fibroblast growth factor 7	P21781	1
438	MAPK3	Mitogen-activated protein kinase 3	P27361	1
439	HGF	Hepatocyte growth factor	P14210	1
440	FGFR4	Fibroblast growth factor receptor 4	P22455	1
441	F10	Coagulation factor X	P00742	1
442	HAMP	Hepcidin	P81172	1
443	PF4	Platelet factor 4	P02776	1
444	APP	Amyloid-beta precursor protein	P05067	1

Supplementary Table S3: The Drug-Disease targets

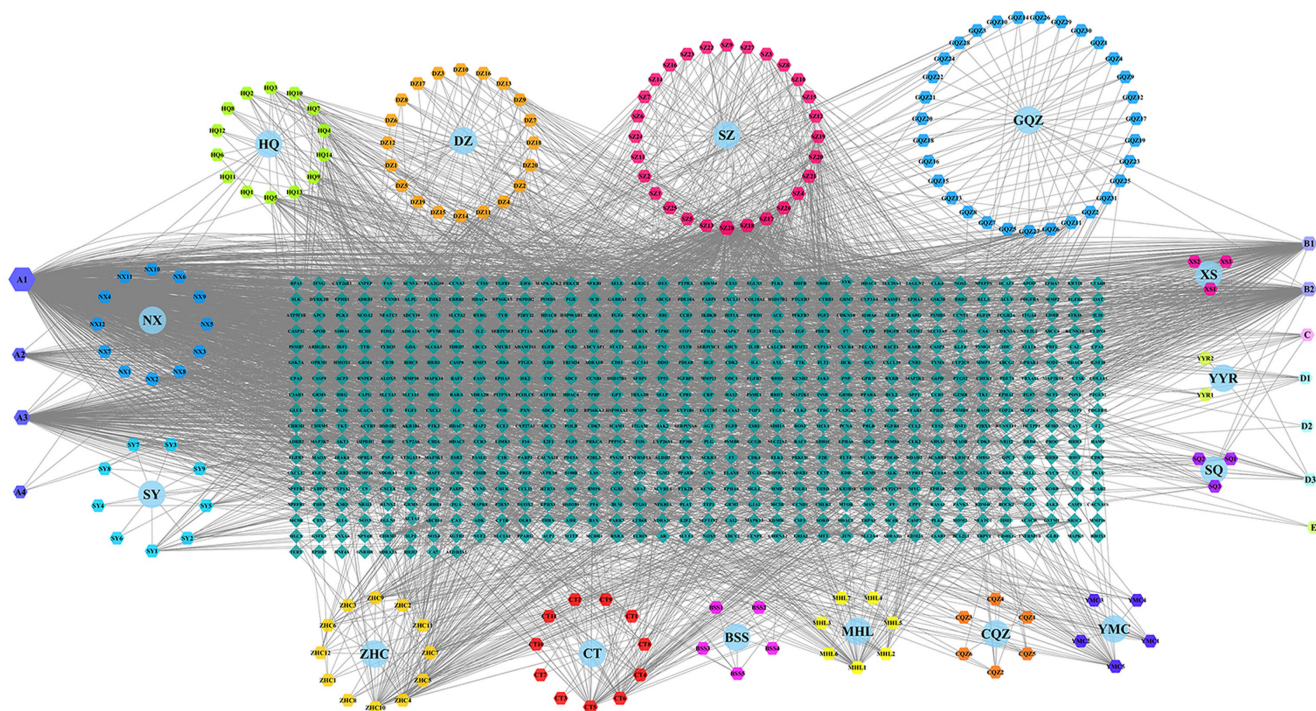
No.	Gene name	Protein names	UniProt ID	Degree
445	FGFR2	Fibroblast growth factor receptor 2	P21802	1
446	EDN1	Endothelin-1	P05305	1
447	SERPINC1	Antithrombin-III	P01008	1
448	FGF1	Fibroblast growth factor 1	P05230	1
449	FGF2	Fibroblast growth factor 2	P09038	1
450	P2RY12	P2Y purinoceptor 12	Q9H244	1
451	F2RL3	Proteinase-activated receptor 4	Q96R10	1
452	ITGA3	Integrin alpha-3	P26006	1
453	ITGA4	Integrin alpha-4	P13612	1
454	AVPR1B	Vasopressin V1b receptor	P47901	1
455	CHIA	Acidic mammalian chitinase	Q9BZP6	1
456	OPRL1	Nociceptin receptor	P41146	1
457	PSMB8	Proteasome subunit beta type-8	P28062	1
458	PSMB9	Proteasome subunit beta type-9	P28065	1
459	NPY4R	Neuropeptide Y receptor type 4	P50391	1
460	OXTR	Oxytocin receptor	P30559	1
461	FURIN	Furin	P09958	1
462	HDAC11	Histone deacetylase 11	Q96DB2	1
463	HDAC1	Histone deacetylase 1	Q13547	1
464	HDAC8	Histone deacetylase 8	Q9BY41	1
465	CBX7	Chromobox protein homolog 7	O95931	1
466	PRLR	Prolactin receptor	P16471	1
467	MEN1	Menin	O00255	1
468	ST3GAL1	CMP-N-acetylneuraminase-beta-galactosamide-alpha-2,3-sialyltransferase 1	Q11201	1
469	IDE	Insulin-degrading enzyme	P14735	1
470	MC3R	Melanocortin receptor 3	P41968	1
471	MC5R	Melanocortin receptor 5	P33032	1
472	C3AR1	C3a anaphylatoxin chemotactic receptor	Q16581	1
473	MC4R	Melanocortin receptor 4	P32245	1
474	CYP2A6	Cytochrome P450 2A6	P11509	1
475	PABPC1	Polyadenylate-binding protein 1	P11940	1
476	BRD2	Bromodomain-containing protein 2	P25440	1
477	GDA	Guanine deaminase	Q9Y2T3	1
478	PTK2B	Protein-tyrosine kinase 2-beta	Q14289	1
479	CDK4	Cyclin-dependent kinase 4	P11802	1
480	FLT4	Vascular endothelial growth factor receptor 3	P35916	1
481	GPR35	G-protein coupled receptor 35	Q9HC97	1
482	GNRHR	Gonadotropin-releasing hormone receptor	P30968	1
483	LSS	Lanosterol synthase	P48449	1
484	BLM	Bloom syndrome protein	P54132	1
485	TYMS	Thymidylate synthase	P04818	1
486	TRIM24	Transcription intermediary factor 1-alpha	O15164	1
487	SCARB1	Scavenger receptor class B member 1	Q8WTV0	1
488	ROCK1	Rho-associated protein kinase 1	Q13464	1
489	LIMK1	LIM domain kinase 1	P53667	1

Supplementary Table S3: The Drug-Disease targets

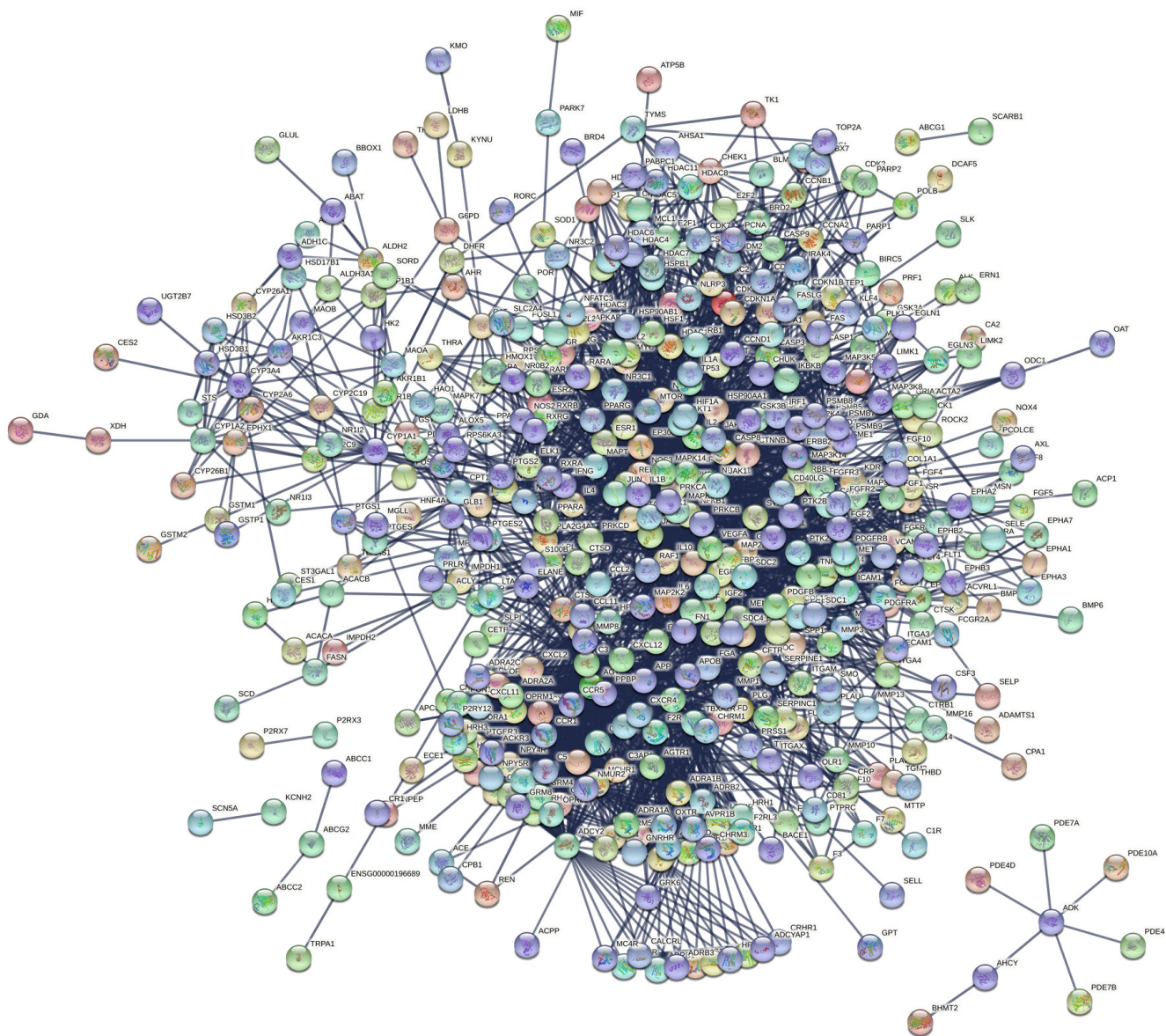
No.	Gene name	Protein names	UniProt ID	Degree
490	CTSS	Cathepsin S	P25774	1
491	IDH1	Isocitrate dehydrogenase [NADP] cytoplasmic	O75874	1
492	APOB	Apolipoprotein B-100	P04114	1
493	MTTP	Microsomal triglyceride transfer protein large subunit	P55157	1
494	PANK3	Pantothenate kinase 3	Q9H999	1
495	PFKFB3	6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase 3	Q16875	1
496	DHFR	Dihydrofolate reductase	P00374	1
497	NLRP3	NACHT, LRR and PYD domains-containing protein 3	Q96P20	1
498	ACACB	Acetyl-CoA carboxylase 2	O00763	1
499	CALCRL	Calcitonin gene-related peptide type 1 receptor	Q16602	1
500	HRH2	Histamine H2 receptor	P25021	1
501	EPHA1	Ephrin type-A receptor 1	P21709	1
502	EPHB1	Ephrin type-B receptor 1	P54762	1
503	EPHA3	Ephrin type-A receptor 3	P29320	1
504	EPHB3	Ephrin type-B receptor 3	P54753	1
505	EPHA7	Ephrin type-A receptor 7	Q15375	1
506	EPHB2	Ephrin type-B receptor 2	P29323	1
507	EPHA2	Ephrin type-A receptor 2	P29317	1
508	ERAP2	Endoplasmic reticulum aminopeptidase 2	Q6P179	1
509	GRK6	G protein-coupled receptor kinase 6	P43250	1
510	RPA1	Replication protein A 70 kDa DNA-binding subunit	P27694	1
511	ADH1A	Alcohol dehydrogenase 1A	P07327	1
512	ABAT	4-aminobutyrate aminotransferase, mitochondrial	P80404	1
513	ABCC2	Canalicular multispecific organic anion transporter 1	Q92887	1
514	MAP2K4	Dual specificity mitogen-activated protein kinase kinase 4	P45985	1
515	PSMG1	Proteasome assembly chaperone 1	O95456	1
516	ADCYAP1	Pituitary adenylate cyclase-activating polypeptide	P18509	1
517	CASP1	Caspase-1	P29466	1
518	APOD	Apolipoprotein D	P05090	1
519	NOX5	NADPH oxidase 5	Q96PH1	1
520	NFATC1	Nuclear factor of activated T-cells, cytoplasmic 1	O95644	1
521	CYCS	Cytochrome c	P99999	1
522	FOSL2	Fos-related antigen 2	P15408	1
523	FOSL1	Fos-related antigen 1	P15407	1
524	PRKCD	Protein kinase C delta type	Q05655	1
525	TEP1	Telomerase protein component 1	Q99973	1
526	FASLG	Tumor necrosis factor ligand superfamily member 6	P48023	1
527	ADCY2	Adenylate cyclase type 2	Q08462	1
528	TYR	Tyrosinase	P14679	1
529	MDM2	E3 ubiquitin-protein ligase Mdm2	Q00987	1
530	HSD3B1	3 beta-hydroxysteroid dehydrogenase/Delta 5-->4-isomerase type 1	P14060	1
531	HSD3B2	3 beta-hydroxysteroid dehydrogenase/Delta 5-->4-isomerase type 2	P26439	1
532	ATP5F1B	ATP synthase subunit beta, mitochondrial	P06576	1
533	RXRΒ	Retinoic acid receptor RXR-beta	P28702	1

Supplementary Table S3: The Drug-Disease targets

No.	Gene name	Protein names	UniProt ID	Degree
534	ADORA1	Adenosine receptor A1	P30542	1
535	PDE5A	cGMP-specific 3',5'-cyclic phosphodiesterase	O76074	1
536	CD38	ADP-ribosyl cyclase/cyclic ADP-ribose hydrolase 1	P28907	1
537	RPS6KA3	Ribosomal protein S6 kinase alpha-3	P51812	1
538	XDH	Xanthine dehydrogenase/oxidase [Includes: Xanthine dehydrogenase	P47989	1
539	CA2	Carbonic anhydrase 2	P00918	1
540	NOX4	NADPH oxidase 4	Q9NPH5	1
541	CA4	Carbonic anhydrase 4	P22748	1
542	CA7	Carbonic anhydrase 7	P43166	1
543	AKR1B1	Aldo-keto reductase family 1 member B1	P15121	1
544	NMUR2	Neuromedin-U receptor 2	Q9GZQ4	1
545	CES2	Cocaine esterase	O00748	1
546	ABCG2	Broad substrate specificity ATP-binding cassette transporter ABCG2	Q9UNQ0	1
547	MERTK	Tyrosine-protein kinase Mer	Q12866	1
548	PLA2G10	Group 10 secretory phospholipase A2	O15496	1
549	ELANE	Neutrophil elastase	P08246	1
550	CES1	Liver carboxylesterase 1	P23141	1
551	BCHE	Cholinesterase	P06276	1
552	TGM2	Protein-glutamine gamma-glutamyltransferase 2	P21980	1
553	PTPRC	Receptor-type tyrosine-protein phosphatase C	P08575	1
554	PDE7B	cAMP-specific 3',5'-cyclic phosphodiesterase 7B	Q9NP56	1
555	PDE4D	cAMP-specific 3',5'-cyclic phosphodiesterase 4D	Q08499	1
556	PDE4B	cAMP-specific 3',5'-cyclic phosphodiesterase 4B	Q07343	1
557	PDE7A	High affinity cAMP-specific 3',5'-cyclic phosphodiesterase 7A	Q13946	1
558	MMP8	Neutrophil collagenase	P22894	1
559	MMP13	Collagenase 3	P45452	1
560	CACNA1S	Voltage-dependent L-type calcium channel subunit alpha-1S	Q13698	1
561	MMP10	Stromelysin-2	P09238	1
562	SLC29A1	Equilibrative nucleoside transporter 1	Q99808	1
563	IMPDH1	Inosine-5'-monophosphate dehydrogenase 1	P20839	1
564	CDK3	Cyclin-dependent kinase 3	Q00526	1
565	ACVRL1	Serine/threonine-protein kinase receptor R3	P37023	1
566	MAP3K14	Mitogen-activated protein kinase kinase kinase 14	Q99558	1
567	PRF1	Perforin-1	P14222	1
568	F9	Coagulation factor IX	P00740	1
569	ABCB11	Bile salt export pump	O95342	1
570	CYP2C9	Cytochrome P450 2C9	P11712	1
571	RHO	Rhodopsin	P08100	1



Supplementary Figure 1. Herb-Compound-Targets network of potential targets in HZYS. The pink ellipse nodes represent the herbs in HZYS, and the hexagon represent the potential active ingredients in HZYS, and the green diamond nodes represent the corresponding targets of the ingredients. And the letters A1, A2, A3, A4, B1, B2, C, D1, D2, D3, E represent the common components of certain herbs. Detailed situations are shown in Table 1. (Unique letters represent different herbs: HQ: Astragalus mongholicus; DZ: Eucommia; SZ: Leech; GQZ: Barbary Wolfberry Fruit; XS: radix scrophulariae; YR: Coix Seed; SQ: pseudo ginseng; YMC: motherwort; CQZ: plantain seed; MHL: Eclipta prostrata; BSS: Glehnia littoralis; CT: periostracum cicada ; ZHC: human placenta; SY: Chinese yam; NX: Radix Achyranthis Bidentatae.)



Supplementary Figure 2.