

Supplementary Table S1. KEGG pathway analysis of DEPs in potentially related signaling pathways

KEGG term	ID	Input number	Background number	Regulated	DEPs
PI3K-Akt signaling pathway	hsa04151	4	354	up	ITGA2B, PKN2, CDK4, VTN
		2	354	down	GRB2, RPS6KB2
p53 signaling pathway	hsa04115	3	72	up	CDK4, RRM2, CHEK1
		1	72	down	BID
MAPK signaling pathway	hsa04010	2	295	up	PPM1B, HSPB1
		2	295	down	GRB2, CRKL
AMPK signaling pathway	hsa04152	1	120	up	SIRT1
		3	120	down	ACACA, PFKFB4, RPS6KB2
mTOR signaling pathway	hsa04150	3	153	down	GRB2, TTI1, RPS6KB2
cAMP signaling pathway	hsa04024	1	214	up	ATP1A1
		2	214	down	ATP2B4, ATP2A3
NOD-like receptor signaling pathway	hsa04621	2	178	up	CTSB, TRPV2
Chemokine signaling pathway	hsa04062	2	190	down	GRB2, CRKL
FoxO signaling pathway	hsa04068	1	132	up	SIRT1
		1	132	down	GRB2
Wnt signaling pathway	hsa04310	1	160	up	NFATC2
		1	160	down	CACYBP
JAK-STAT signaling pathway	hsa04630	1	162	down	GRB2
TGF-beta signaling pathway	hsa04350	1	94	down	RPS6KB2

Supplementary Table S2. KEGG pathway analysis of DEPs in potentially related biological process

KEGG term	ID	Input number	Background number	Regulated	DEPs
MicroRNAs in cancer	hsa05206	2	299	up	CD44, SIRT1
		3	299	down	PDCD4, GRB2, CRKL
ECM-receptor interaction	hsa04512	4	86	up	CD44, VTN, GP1BB, ITGA2B
Protein processing in endoplasmic reticulum	hsa04141	4	165	up	STUB1, SVIP, DNAJC1, CAPN2
Hematopoietic cell lineage	hsa04640	3	97	up	CD44, GP1BB, ITGA2B
Fanconi anemia pathway	hsa03460	1	54	up	ERCC1
Ferroptosis	hsa04216	1	40	up	ACSL1
Nucleotide excision repair	hsa03420	1	47	up	ERCC1
Chemical carcinogenesis	hsa05204	1	82	up	AKR1C2

Supplementary Table S3. Input DEPs of hematotoxicity-related KEGG pathway in HQ-induced K562 cells

KEGG ID	Protein name	Description	Log ₂ (HQ/C)	P-value
hsa2067	ERCC1	ERCC excision repair 1, endonuclease non-catalytic subunit	3.27	0.02
hsa2812	GP1BB	glycoprotein Ib platelet beta subunit	2.16	0.03
hsa5586	PKN2	protein kinase N2	1.88	0.01
hsa7448	VTN	vitronectin	1.71	0.01
hsa29082	CHMP4A	charged multivesicular body protein 4A	1.16	0.02
hsa960	CD44	CD44 molecule (Indian blood group)	1.13	0.01
hsa1646	AKR1C2	aldo-keto reductase family 1 member C2	1.11	0.00
hsa1111	CHEK1	checkpoint kinase 1	0.94	0.03
hsa3674	ITGA2B	integrin subunit alpha 2b	0.80	0.02
hsa6241	RRM2	ribonucleotide reductase regulatory subunit M2	0.74	0.04
hsa1509	CTSD	cathepsin D	0.73	0.00
hsa51393	TRPV2	transient receptor potential cation channel subfamily V member 2	0.72	0.04
hsa476	ATP1A1	ATPase Na ⁺ /K ⁺ transporting subunit alpha 1	0.72	0.01
hsa23411	SIRT1	sirtuin 1	0.72	0.04
hsa1508	CTSB	cathepsin B	0.65	0.00
hsa1019	CDK4	cyclin dependent kinase 4	0.63	0.01
hsa5495	PPM1B	protein phosphatase, Mg ²⁺ /Mn ²⁺ dependent 1B	0.59	0.01
hsa3315	HSPB1	heat shock protein family B (small) member 1	0.58	0.03
hsa4773	NFATC2	nuclear factor of activated T-cells 2	0.58	0.04
hsa64215	DNAJC1	DnaJ heat shock protein family (Hsp40) member C1	0.56	0.01
hsa701	BUB1B	BUB1 mitotic checkpoint serine/threonine kinase B	0.52	0.02
hsa10273	STUB1	STIP1 homology and U-box containing protein 1	0.48	0.01
hsa2180	ACSL1	acyl-CoA synthetase long-chain family member 1	0.48	0.04
hsa258010	SVIP	small VCP interacting protein	0.47	0.03
hsa824	CAPN2	calpain 2	0.44	0.02
hsa3920	LAMP2	lysosomal associated membrane protein 2	0.44	0.04
hsa6709	SPTAN1	spectrin alpha, non-erythrocytic 1	0.41	0.03
hsa31	ACACA	acetyl-CoA carboxylase alpha	-0.38	0.02
hsa489	ATP2A3	ATPase sarcoplasmic/endoplasmic reticulum Ca ²⁺ transporting 3	-0.39	0.00
hsa27101	CACYBP	calcyclin binding protein	-0.40	0.04
hsa2885	GRB2	growth factor receptor bound protein 2	-0.44	0.03
hsa5928	RBBP4	RB binding protein 4, chromatin remodeling factor	-0.47	0.03
hsa1399	CRKL	CRK like proto-oncogene, adaptor protein	-0.48	0.03
hsa493	ATP2B4	ATPase plasma membrane Ca ²⁺ transporting 4	-0.51	0.01
hsa2752	GLUL	glutamate-ammonia ligase	-0.60	0.02
hsa637	BID	BH3 interacting domain death agonist	-0.64	0.04
hsa6199	RPS6KB2	ribosomal protein S6 kinase B2	-0.81	0.01
hsa27250	PDCD4	programmed cell death 4	-0.88	0.01
hsa9675	TTI1	TELO2 interacting protein 1	-1.14	0.04
hsa5210	PFKFB4	6-phosphofructo-2-kinase/fructose-2,6-biphosphatase 4	-1.85	0.02