

Supplementary Table 2. Biomolecular networks analysis of the relationship between ivermectin and energy metabolism-related enzymes with IPA software.

Drug name	Target molecule(direct)	Target molecule(indirect)	Energy metabolism related enzymes
ivermectin	ABCB1	APP	MT-CYB
ivermectin	Abcb1b	APP	MT-CYB
ivermectin	ABCG2	APP	MT-CYB
ivermectin	CYP3A4	STAT3	MT-CYB
ivermectin	CYP3A4	testosterone	MT-CYB
ivermectin	cytokine	AMPK	MT-CYB
ivermectin	cytokine	APP	MT-CYB
ivermectin	cytokine	DICER1	MT-CYB
ivermectin	cytokine	Growth hormone	MT-CYB
ivermectin	cytokine	LEP	MT-CYB
ivermectin	cytokine	LIF	MT-CYB
ivermectin	cytokine	NFKBIA	MT-CYB
ivermectin	cytokine	RELA	MT-CYB
ivermectin	cytokine	STAT3	MT-CYB
ivermectin	cytokine	TNF	MT-CYB
ivermectin	GLRB	APP	MT-CYB
ivermectin	Insulin	AMPK	MT-CYB
ivermectin	Insulin	APP	MT-CYB
ivermectin	Insulin	dihydrotestosterone	MT-CYB
ivermectin	Insulin	Growth hormone	MT-CYB
ivermectin	Insulin	HNRNPK	MT-CYB
ivermectin	Insulin	LEP	MT-CYB
ivermectin	Insulin	NFKBIA	MT-CYB
ivermectin	Insulin	PTEN	MT-CYB
ivermectin	Insulin	RELA	MT-CYB
ivermectin	Insulin	STAT3	MT-CYB

ivermectin	Insulin	testosterone	MT-CYB
ivermectin	Insulin	TNF	MT-CYB
ivermectin	Insulin	UQCRC2	MT-CYB
ivermectin	P glycoprotein	testosterone	MT-CYB
ivermectin	P2RX7	NFKBIA	MT-CYB
ivermectin	P2RX7	TNF	MT-CYB
ivermectin	strychnine	TNF	MT-CYB
ivermectin	ABCB1	APP	MT-ND2
ivermectin	Abcb1b	APP	MT-ND2
ivermectin	ABCG2	APP	MT-ND2
ivermectin	CYP3A4	STAT3	MT-ND2
ivermectin	cytokine	APP	MT-ND2
ivermectin	cytokine	LIF	MT-ND2
ivermectin	cytokine	STAT3	MT-ND2
ivermectin	GLRB	APP	MT-ND2
ivermectin	Insulin	APP	MT-ND2
ivermectin	Insulin	HNRNPK	MT-ND2
ivermectin	Insulin	SRC	MT-ND2
ivermectin	Insulin	STAT3	MT-ND2
ivermectin	Insulin	STK11	MT-ND2
	ABCB1	APP	MT-ND5
	ABCB1	SP1	MT-ND5
	Abcb1b	APP	MT-ND5
	ABCG2	APP	MT-ND5
	CYP3A4	STAT3	MT-ND5
	CYP3A4	testosterone	MT-ND5
	cytokine	APP	MT-ND5
ivermectin	cytokine	BAX	MT-ND5
ivermectin	cytokine	DICER1	MT-ND5
	cytokine	Growth hormone	MT-ND5

ivermectin	cytokine	LIF	MT-ND5
	cytokine	STAT3	MT-ND5
ivermectin	GLRB	APP	MT-ND5
ivermectin	GLRB	CLEC2D	MT-ND5
ivermectin	Insulin	APP	MT-ND5
ivermectin	Insulin	Growth hormone	MT-ND5
ivermectin	Insulin	HNRNPK	MT-ND5
ivermectin	Insulin	MT-ND1	MT-ND5
ivermectin	Insulin	SP1	MT-ND5
ivermectin	Insulin	STAT3	MT-ND5
ivermectin	Insulin	testosterone	MT-ND5
ivermectin	P glycoprotein	testosterone	MT-ND5
ivermectin	P2RX7	BAX	MT-ND5
ivermectin	CYP3A4	STAT3	OGDHL
ivermectin	cytokine	NFKBIA	OGDHL
ivermectin	cytokine	STAT3	OGDHL
ivermectin	Insulin	miR-296-5p (miRNAs w/seed GGGCCCC)	OGDHL
ivermectin	Insulin	NFKBIA	OGDHL
ivermectin	Insulin	SH3RF1	OGDHL
ivermectin	Insulin	STAT3	OGDHL
ivermectin	P2RX7	NFKBIA	OGDHL
ivermectin	ABCB1	APP	PKM
ivermectin	ABCB1	CUL7	PKM
ivermectin	ABCB1	IFNG	PKM
ivermectin	ABCB1	LNK1	PKM
ivermectin	ABCB1	NTRK1	PKM
ivermectin	ABCG2	5-fluorouracil	PKM
ivermectin	ABCB1	reactive oxygen species	PKM
ivermectin	ABCB1	SP1	PKM

ivermectin	Abcb1b	APP	PKM
ivermectin	Abcb1b	IFNG	PKM
ivermectin	Abcb1b	progesterone	PKM
ivermectin	ABCG2	APP	PKM
ivermectin	ABCG2	TRIM69	PKM
ivermectin	CYP3A4	beta-estradiol	PKM
ivermectin	CYP3A4	cyclosporin A	PKM
ivermectin	CYP3A4	HSPA8	PKM
ivermectin	CYP3A4	progesterone	PKM
ivermectin	CYP3A4	reactive oxygen species	PKM
ivermectin	CYP3A4	sirolimus	PKM
ivermectin	CYP3A4	STAT3	PKM
ivermectin	cytokine	AKT1	PKM
ivermectin	cytokine	ANG	PKM
ivermectin	cytokine	APP	PKM
ivermectin	cytokine	CSF1	PKM
ivermectin	cytokine	EGF	PKM
ivermectin	cytokine	ELAVL1	PKM
ivermectin	cytokine	HIF1A	PKM
ivermectin	cytokine	IFNG	PKM
ivermectin	cytokine	MAPK1	PKM
ivermectin	cytokine	MAPK13	PKM
ivermectin	cytokine	MAPK3	PKM
ivermectin	cytokine	MYC	PKM
ivermectin	cytokine	RAF1	PKM
ivermectin	cytokine	reactive oxygen species	PKM
ivermectin	cytokine	RELA	PKM
ivermectin	cytokine	SOCS3	PKM
ivermectin	cytokine	STAT3	PKM
ivermectin	cytokine	TNF	PKM

ivermectin	GLRB	APP	PKM
ivermectin	GLRB	EGFR	PKM
ivermectin	GLRB	lipopolysaccharide	PKM
ivermectin	Insulin	AKT1	PKM
ivermectin	Insulin	APP	PKM
ivermectin	Insulin	ARRB1	PKM
ivermectin	Insulin	beta-estradiol	PKM
ivermectin	Insulin	CASP3	PKM
ivermectin	Insulin	CDK2	PKM
ivermectin	Insulin	CDK4	PKM
ivermectin	Insulin	CDKN1A	PKM
ivermectin	Insulin	CYP1A1	PKM
ivermectin	Insulin	D-glucose	PKM
ivermectin	Insulin	EGFR	PKM
ivermectin	Insulin	ELAVL1	PKM
ivermectin	Insulin	EPAS1	PKM
ivermectin	Insulin	ERK1/2	PKM
ivermectin	Insulin	FBX032	PKM
ivermectin	Insulin	FN1	PKM
ivermectin	Insulin	HIF1A	PKM
ivermectin	Insulin	HNF4A	PKM
ivermectin	Insulin	IFNG	PKM
ivermectin	Insulin	IGF1	PKM
ivermectin	Insulin	IGF1R	PKM
ivermectin	Insulin	KHDRBS1	PKM
ivermectin	Insulin	MAPK1	PKM
ivermectin	Insulin	MAPK3	PKM
ivermectin	Insulin	MAPT	PKM
ivermectin	Insulin	miR-133a-3p (and other miRNAs w/seed UUGGUCC)	PKM

ivermectin	Insulin	mir-148	PKM
ivermectin	Insulin	MTOR	PKM
ivermectin	Insulin	MTORC1	PKM
ivermectin	Insulin	MYC	PKM
ivermectin	Insulin	PDK4	PKM
ivermectin	Insulin	PIK3R1	PKM
ivermectin	Insulin	PRKCZ	PKM
ivermectin	Insulin	progesterone	PKM
ivermectin	Insulin	PSEN1	PKM
ivermectin	Insulin	PTBP1	PKM
ivermectin	Insulin	PTEN	PKM
ivermectin	Insulin	RAF1	PKM
ivermectin	Insulin	reactive oxygen species	PKM
ivermectin	Insulin	RELA	PKM
ivermectin	Insulin	RPTOR	PKM
ivermectin	Insulin	SHBG	PKM
ivermectin	Insulin	SIRT2	PKM
ivermectin	Insulin	SP1	PKM
ivermectin	Insulin	STAT3	PKM
ivermectin	Insulin	TNF	PKM
ivermectin	Insulin	TRIM63	PKM
ivermectin	Insulin	UCP2	PKM
ivermectin	Insulin	YWHAE	PKM
ivermectin	ivermectin	Insulin	PKM
ivermectin	P glycoprotein	CASP3	PKM
ivermectin	P glycoprotein	cyclosporin A	PKM
ivermectin	P glycoprotein	EGF	PKM
ivermectin	P glycoprotein	IFNG	PKM
ivermectin	P glycoprotein	progesterone	PKM
ivermectin	P2RX4	FANCD2	PKM

ivermectin	P2RX4	MCM2	PKM
ivermectin	P2RX7	ARRB2	PKM
ivermectin	P2RX7	CASP3	PKM
ivermectin	P2RX7	ERK1/2	PKM
ivermectin	P2RX7	lipopolysaccharide	PKM
ivermectin	P2RX7	MAPK1	PKM
ivermectin	P2RX7	MAPK3	PKM
ivermectin	P2RX7	reactive oxygen species	PKM
ivermectin	P2RX7	TNF	PKM
ivermectin	Rbp	SOCS3	PKM
ivermectin	strychnine	TNF	PKM
ivermectin	cytokine	hydrogen peroxide	UQCRH
ivermectin	cytokine	PPARGC1A	UQCRH
ivermectin	Insulin	hydrogen peroxide	UQCRH
ivermectin	Insulin	miR-376a-3p (and other miRNAs	UQCRH
ivermectin	Insulin	PPARGC1A	UQCRH
ivermectin	Insulin	UQCRC2	UQCRH
