

Supplemental File 6:
Comparison of Mouse and CHO lethal gene sets

The SL pairs in mouse genome scale model (139 gene pairs)

GENE 1	GENE2	GENE1	GENE2	GENE1	GENE2	GENE1	GENE2
AAPR	GPAT1	FFAM06	FFAM16	MIPL	UGDH	PGLS	TRALD
ADSLa	MTHFD1	FFAM15	FFB05	MIPL	UGT2B5	PHEXT	TYRXT
ADSLa	MTHFD2a	FFAM16	FFB05	MTHFD1	PAICS	POLA11	RRM1
ADSLa	MTHFD2b	FFAM19	FFB03	MTHFD1	PAICSa	POLA13	RRM2b
ADSLa	SLC26A6	FFB01	FFB47	MTHFD1	PFAS	POLA14	TMK
AFMIDa	AFMIDc	FFB03	FFE03	MTHFD1	PRPS2	POLA14	TYMS
AFMIDc	KYNUa	FFB04	FFB51	MTHFD1	PURH	PRPS2	SLC26A6
AFMIDc	KYNUb	Fha	MTHFD1	MTHFD1	PURHa	PSS1	PSS2
AGPAT	CELb	Fha	MTHFD2a	MTHFD2a	PAICS	PURH	SLC26A6
AGPAT	HIBCHb	Fha	MTHFD2b	MTHFD2a	PAICSa	PURHa	SLC26A6
AGPAT	HPG22	Fha	SLC26A6	MTHFD2a	PFAS	SDHC	SUDCb
AGPAT	HPG33	FHb	SUDCb	MTHFD2a	PRPS2	SLC14A1	SLC14A2
ASNS	ASNXT	FTHFL	MTHFD1	MTHFD2a	PURH	TR3b	TXNRD2
CBSa	CYSXT	FTHFL	MTHFD2a	MTHFD2a	PURHa		
CBSa	MTR	FTHFL	MTHFD2b	MTHFD2b	PAICS		
CHK	CHKL	FTHFL	SLC26A6	MTHFD2b	PAICSa		
CHOK	PC3	GARc	MTHFD1	MTHFD2b	PFAS		
CHOK	PSS1	GARc	MTHFD2a	MTHFD2b	PRPS2		
CHOL4	DHCR24b	GARc	MTHFD2b	MTHFD2b	PURH		
CHOL4	EBPa	GARc	SLC26A6	MTHFD2b	PURHa		
CHOL4	HPG09	GARTa	MTHFD1	MTR	MUTa		
CHOL4	HPG10	GARTa	MTHFD2a	MTR	PCCB		
CHOL4	SC5D	GARTa	MTHFD2b	NADK	NT5M6		
CHOL5	DHCR24b	GARTa	SLC26A6	OGDH2	SUDCb		
CHOL5	EBPa	GARTb	MTHFD1	OGDH3	SUDCb		
CHOL5	HPG09	GARTb	MTHFD2a	PAHb	PHEXT		
CHOL5	HPG10	GARTb	MTHFD2b	PAICS	SLC26A6		
CHOL5	SC5D	GARTb	SLC26A6	PAICSa	SLC26A6		
CTHc	CYSXT	GDC1	GYK	PBEF1	RPPK		
CTHc	MTR	GPAT1	GPAT2	PC1	PC3		
CYSOUT	MTR	GPD2	RPE	PC1	PSS1		
CYSXT	HPG25	GPD2	TKT	PC2	PC3		
CYSXT	MUTa	GPD2	TKTa	PC2	PSS1		
CYSXT	PCCB	GPD2	TRALD	PC3	PSS2		
DHCR24a	SC5D	GUSBa	IMPA2	PFAS	SLC26A6		
DHPR1	PHEXT	GUSBa	MIPL	PGD	RPE		
DLST1	SUDCb	HMGCLa	MGCH	PGD	TKT		
FDFT1a	FDFT1b	HPG25	MTR	PGD	TKTa		
FDFT1a	FDFT1c	IMPA2	MIOX	PGD	TRALD		
FFAM04	FFAM19	IMPA2	UGDH	PGLS	RPE		
FFAM04	FFE03	IMPA2	UGT2B5	PGLS	TKT		
FFAM06	FFAM15	MIOX	MIPL	PGLS	TKTa		

Gene 1- Gene 2 refer to a synthetic lethal pair

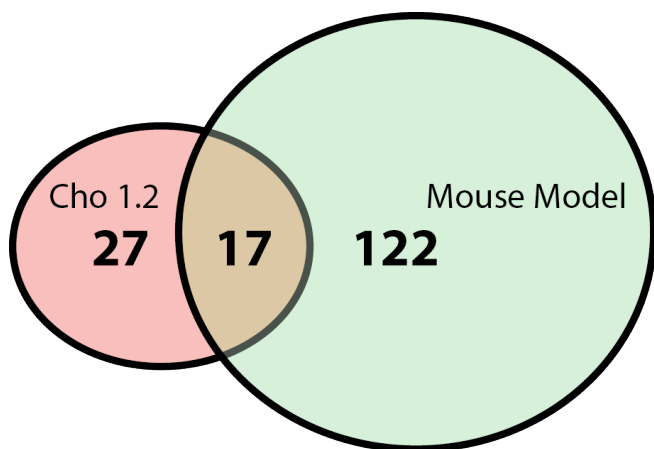


Figure: Overlap of mouse and CHO 1.2 synthetic lethal pairs

Table: Showing the common SL pairs between CHO 1.2 and mouse GSM

The SL pairs COMMON in mouse genome scale model and CHO 1.2

	GENE 1	GENE2
Gene 1- Gene 2 refers to a synthetic lethal pair	<i>asnS</i>	<i>asnXt</i>
	<i>pheXt</i>	<i>tyrXt</i>
	<i>pah</i>	<i>pheXt</i>
	<i>ptdSs1</i>	<i>ptdSs2</i>
	<i>gusB</i>	<i>impA2</i>
	<i>pc3</i>	<i>ptdSs2</i>
	<i>dhcR24</i>	<i>sc5D</i>
	<i>pc3</i>	<i>pc2</i>
	<i>impA2</i>	<i>mioX</i>
	<i>polA1</i>	<i>tymS</i>
	<i>impA2</i>	<i>ugdH</i>
	<i>choL4</i>	<i>sc5D</i>
	<i>txnd2</i>	<i>tr3</i>
	<i>slc14a2</i>	<i>slc14a1</i>
	<i>dhcR24</i>	<i>choL4</i>
	<i>pc2</i>	<i>ptdSs1</i>
	<i>chkA</i>	<i>chkB</i>