

**Table S8.** Kinase-kinase interactions in the combined KPI, LTP and HTP-HC datasets. Interactions of annotated kinase subunits were combined with interactions of corresponding kinases.

YORF	NAME	YORF	NAME
YAR019C	CDC15	YAR019C	CDC15
YAR019C	CDC15	YGR092W	DBF2
YAR019C	CDC15	YPR111W	DBF20
YBL009W	ALK2	YKL203C	TOR2
YBL016W	FUS3	YBL016W	FUS3
YBL016W	FUS3	YDL159W	STE7
YBL016W	FUS3	YGL158W	RCK1
YBL105C	PKC1	YBR059C	AKL1
YBL105C	PKC1	YOL100W	PKH2
YBL105C	PKC1	YOR231W	MKK1
YBL105C	PKC1	YJL095W	BCK1
YBR059C	AKL1	YFR014C	CMK1
YBR136W	MEC1	YPL153C	RAD53
YBR160W	CDC28	YNL161W	CBK1
YBR160W	CDC28	YBR160W	CDC28
YBR160W	CDC28	YGR092W	DBF2
YBR160W	CDC28	YNL298W	CLA4
YBR160W	CDC28	YLR096W	KIN2
YBR160W	CDC28	YPL031C	PHO85
YBR160W	CDC28	YFL029C	CAK1
YBR160W	CDC28	YKL048C	ELM1
YBR160W	CDC28	YMR001C	CDC5
YBR160W	CDC28	YHL007C	STE20
YBR160W	CDC28	YHR030C	SLT2
YBR160W	CDC28	YJL187C	SWE1
YBR274W	CHK1	YBR274W	CHK1
YCL024W	KCC4	YJL187C	SWE1
YCL024W	KCC4	YKL048C	ELM1
YCL024W	KCC4	YPL031C	PHO85
YDL017W	CDC7	YDL017W	CDC7
YDL017W	CDC7	YMR001C	CDC5
YDL017W	CDC7	YBR160W	CDC28
YDL017W	CDC7	YPL153C	RAD53
YDL028C	MPS1	YDL028C	MPS1
YDL028C	MPS1	YPR111W	DBF20
YDL028C	MPS1	YFR014C	CMK1
YDL028C	MPS1	YPL204W	HRR25
YDL028C	MPS1	YOL016C	CMK2
YDL028C	MPS1	YMR001C	CDC5
YDL028C	MPS1	YGR092W	DBF2
YDL101C	DUN1	YBR136W	MEC1
YDL101C	DUN1	YBL088C	TEL1
YDL101C	DUN1	YPL153C	RAD53
YDL108W	KIN28	YDL108W	KIN28
YDL108W	KIN28	YPL031C	PHO85
YDL159W	STE7	YDL159W	STE7
YDL159W	STE7	YLR113W	HOG1
YDL159W	STE7	YGR040W	KSS1
YDR122W	KIN1	YJL187C	SWE1
YDR122W	KIN1	YNL161W	CBK1
YDR283C	GCN2	YDR283C	GCN2
YDR466W	PKH3	YJL095W	BCK1
YDR477W	SNF1	YOR267C	HRK1
YDR477W	SNF1	YDR477W	SNF1
YDR477W	SNF1	YNL183C	NPR1
YDR477W	SNF1	YER129W	SAK1
YDR477W	SNF1	YPL042C	SSN3
YDR477W	SNF1	YKL139W	CTK1
YDR490C	PKH1	YOR061W	CKA2
YDR490C	PKH1	YHR205W	SCH9
YDR490C	PKH1	YJR059W	PTK2
YDR490C	PKH1	YMR104C	YPK2
YDR490C	PKH1	YKL126W	YPK1
YDR507C	GIN4	YKL101W	HSL1
YDR507C	GIN4	YDR507C	GIN4
YDR507C	GIN4	YPL153C	RAD53
YDR507C	GIN4	YJL095W	BCK1
YDR507C	GIN4	YMR139W	MDS1
YDR507C	GIN4	YKL048C	ELM1
YDR507C	GIN4	YBR160W	CDC28
YER129W	SAK1	YER129W	SAK1
YFL029C	CAK1	YKL139W	CTK1
YFL029C	CAK1	YDL108W	KIN28
YFL033C	RIM15	YFL033C	RIM15
YFL033C	RIM15	YPL031C	PHO85
YFL033C	RIM15	YHR205W	SCH9
YFR014C	CMK1	YFR014C	CMK1
YFR014C	CMK1	YJL187C	SWE1
YFR014C	CMK1	YOL016C	CMK2
YFR014C	CMK1	YOR061W	CKA2

YGL059W	YGL059W	YIL042C	PKP1
YGL158W	RCK1	YLR113W	HOG1
YGL180W	ATG1	YGL180W	ATG1
YGR040W	KSS1	YKL203C	TOR2
YGR052W	FMP48	YJR066W	TOR1
YGR052W	FMP48	YKL203C	TOR2
YGR052W	FMP48	YHR082C	KSP1
YGR092W	DBF2	YPL150W	YPL150W
YGR092W	DBF2	YKL126W	YPK1
YGR092W	DBF2	YNR047W	YNR047W
YGR092W	DBF2	YPL042C	SSN3
YGR092W	DBF2	YKL168C	KKQ8
YGR092W	DBF2	YGR092W	DBF2
YGR262C	BUD32	YGR262C	BUD32
YHL007C	STE20	YHR030C	SLT2
YHR030C	SLT2	YHR030C	SLT2
YHR030C	SLT2	YJL095W	BCK1
YHR079C	IRE1	YHR079C	IRE1
YHR099W	TRA1	YHR082C	KSP1
YHR099W	TRA1	YGL158W	RCK1
YHR102W	KIC1	YHR030C	SLT2
YHR135C	YCK1	YNL154C	YCK2
YIL035C	CKA1	YOR267C	HRK1
YIL035C	CKA1	YNL207W	RIO2
YIL035C	CKA1	YJL187C	SWE1
YIL035C	CKA1	YPL042C	SSN3
YIL035C	CKA1	YIL035C	CKA1
YIL035C	CKA1	YLR113W	HOG1
YIL035C	CKA1	YPL153C	RAD53
YIL035C	CKA1	YOR119C	RIO1
YIL035C	CKA1	YER129W	SAK1
YIL035C	CKA1	YOR061W	CKA2
YIL095W	PRK1	YOL016C	CMK2
YIL095W	PRK1	YFR014C	CMK1
YJL095W	BCK1	YJL095W	BCK1
YJL106W	IME2	YJR066W	TOR1
YJL106W	IME2	YJL106W	IME2
YJL106W	IME2	YKL203C	TOR2
YJL128C	PBS2	YCR073C	SSK22
YJL128C	PBS2	YNR031C	SSK2
YJL141C	YAK1	YPL203W	TPK2
YJL164C	TPK1	YJL164C	TPK1
YJL164C	TPK1	YPL203W	TPK2
YJL187C	SWE1	YOL016C	CMK2
YJL187C	SWE1	YMR001C	CDC5
YJL187C	SWE1	YNL298W	CLA4
YJR066W	TOR1	YJR066W	TOR1
YJR066W	TOR1	YHR205W	SCH9
YJR066W	TOR1	YHR082C	KSP1
YJR066W	TOR1	YJL095W	BCK1
YJR066W	TOR1	YGL158W	RCK1
YJR066W	TOR1	YKL203C	TOR2
YKL048C	ELM1	YLR096W	KIN2
YKL048C	ELM1	YKL048C	ELM1
YKL048C	ELM1	YDR122W	KIN1
YKL101W	HSL1	YKL101W	HSL1
YKL101W	HSL1	YNL307C	MCK1
YKL126W	YPK1	YKL203C	TOR2
YKL139W	CTK1	YKL139W	CTK1
YKL161C	KDX1	YLR096W	KIN2
YKL161C	KDX1	YPL140C	MKK2
YKL161C	KDX1	YJR066W	TOR1
YKL161C	KDX1	YHR082C	KSP1
YKL161C	KDX1	YGR040W	KSS1
YKL161C	KDX1	YJL095W	BCK1
YKL166C	TPK3	YKL166C	TPK3
YKL166C	TPK3	YJL164C	TPK1
YKL166C	TPK3	YPL203W	TPK2
YKL171W	NNK1	YPL204W	HRR25
YKL171W	NNK1	YJR066W	TOR1
YKL171W	NNK1	YNL307C	MCK1
YKL171W	NNK1	YKL203C	TOR2
YKL203C	TOR2	YKL203C	TOR2
YKL203C	TOR2	YHR082C	KSP1
YKL203C	TOR2	YJL095W	BCK1
YKL203C	TOR2	YMR104C	YPK2
YLR096W	KIN2	YHR030C	SLT2
YLR096W	KIN2	YNL207W	RIO2
YLR096W	KIN2	YFL033C	RIM15
YLR096W	KIN2	YJL187C	SWE1
YLR096W	KIN2	YJR066W	TOR1
YLR096W	KIN2	YDR283C	GCN2
YLR096W	KIN2	YHR082C	KSP1
YLR113W	HOG1	YDL108W	KIN28
YLR113W	HOG1	YJL128C	PBS2
YLR113W	HOG1	YKL101W	HSL1

YLR113W	HOG1	YHR205W	SCH9
YLR248W	RCK2	YLR248W	RCK2
YLR248W	RCK2	YPL153C	RAD53
YLR248W	RCK2	YLR113W	HOG1
YLR362W	STE11	YBL016W	FUS3
YLR362W	STE11	YDL159W	STE7
YLR362W	STE11	YLR362W	STE11
YLR362W	STE11	YJL128C	PBS2
YLR362W	STE11	YHL007C	STE20
YLR362W	STE11	YGR040W	KSS1
YLR362W	STE11	YNL298W	CLA4
YMR139W	MDS1	YJL106W	IME2
YMR139W	MDS1	YCL024W	KCC4
YMR216C	SKY1	YJR066W	TOR1
YNL020C	ARK1	YBR059C	AKL1
YNL154C	YCK2	YNL020C	ARK1
YNL161W	CBK1	YLR096W	KIN2
YNL161W	CBK1	YNL161W	CBK1
YNL161W	CBK1	YHL007C	STE20
YNL161W	CBK1	YHR102W	KIC1
YNL183C	NPR1	YJR066W	TOR1
YNL183C	NPR1	YDR283C	GCN2
YNL183C	NPR1	YKL203C	TOR2
YNL207W	RIO2	YPL042C	SSN3
YNL207W	RIO2	YKL203C	TOR2
YNL207W	RIO2	YOR119C	RIO1
YNL307C	MCK1	YNL307C	MCK1
YNR031C	SSK2	YHR030C	SLT2
YNR031C	SSK2	YCR073C	SSK22
YNR031C	SSK2	YNR031C	SSK2
YOL016C	CMK2	YOL016C	CMK2
YOL016C	CMK2	YOR061W	CKA2
YOL045W	PSK2	YAL017W	PSK1
YOR061W	CKA2	YLR096W	KIN2
YOR061W	CKA2	YBR059C	AKL1
YOR061W	CKA2	YOR267C	HRK1
YOR061W	CKA2	YNL207W	RIO2
YOR061W	CKA2	YJL187C	SWE1
YOR061W	CKA2	YDL025C	YDL025C
YOR061W	CKA2	YOR061W	CKA2
YOR061W	CKA2	YLR113W	HOG1
YOR061W	CKA2	YJL095W	BCK1
YOR061W	CKA2	YPL153C	RAD53
YOR061W	CKA2	YOR119C	RIO1
YOR061W	CKA2	YER129W	SAK1
YOR119C	RIO1	YOR119C	RIO1
YOR231W	MKK1	YJL095W	BCK1
YOR231W	MKK1	YDR507C	GIN4
YOR231W	MKK1	YHR030C	SLT2
YOR233W	KIN4	YBL009W	ALK2
YPL031C	PHO85	YPL031C	PHO85
YPL031C	PHO85	YNR047W	YNR047W
YPL031C	PHO85	YKL116C	PRR1
YPL031C	PHO85	YPR106W	ISR1
YPL031C	PHO85	YHR082C	KSP1
YPL031C	PHO85	YGL158W	RCK1
YPL042C	SSN3	YPL031C	PHO85
YPL042C	SSN3	YPL042C	SSN3
YPL042C	SSN3	YDR283C	GCN2
YPL042C	SSN3	YGL158W	RCK1
YPL140C	MKK2	YHR030C	SLT2
YPL140C	MKK2	YJL095W	BCK1
YPL153C	RAD53	YPL153C	RAD53
YPL203W	TPK2	YPL203W	TPK2
YPL203W	TPK2	YHR082C	KSP1
YPL204W	HRR25	YPL031C	PHO85
YPL204W	HRR25	YNL207W	RIO2
YPL204W	HRR25	YFL033C	RIM15
YPL204W	HRR25	YNL183C	NPR1
YPL204W	HRR25	YDR283C	GCN2
YPL204W	HRR25	YER129W	SAK1
YPL204W	HRR25	YGL158W	RCK1
YPR054W	SMK1	YHR030C	SLT2
YPR111W	DBF20	YKL126W	YPK1
YPR111W	DBF20	YGR092W	DBF2
YPR111W	DBF20	YPR111W	DBF20
YPR161C	SGV1	YPR161C	SGV1