

Supplementary Table 1. Information on the 170 traits that possess joint linkage at FDR = 10%. The “q-value-Joint” column gives the q-value for joint linkage, where a q-value is the FDR analogue of the p-value. In the “Cis” column, 0 denotes no cis linkage, 1 denotes cis linkage to the primary locus (locus 1), and 2 denotes cis linkage to the secondary locus (locus 2).

Trait	Chr	Start	Stop	Locus 1 Chr	Locus 1 Pos	Locus 2 Chr	Locus 2 Pos	q-value Joint	Cis
YAL008W	1	136916	137512	15	172654	14	486861	0.085	0
YAR020C	1	177021	176854	4	722072	15	136326	0.0699	0
YAR033W	1	188101	188805	7	404437	1	185880	0.0282	2
YAR047C	1	201780	201460	1	199762	5	395442	0.0734	1
YBR068C	2	375687	373858	3	90986	13	67735	0.0351	0
YBR069C	2	378430	376571	2	376562	5	350744	0.0564	1
YBR083W	2	409163	410623	8	111686	2	405289	0.0226	2
YBR166C	2	571195	569837	2	565216	3	105042	0.0883	1
YBR281C	2	767602	764966	2	771132	15	179409	0.0977	1
YCL073C	3	8326	6479	12	501030	11	651631	0.0559	0
YCL066W	3	13282	13809	3	201166	12	423789	0.1008	0
YCL065W	3	13751	14119	3	201166	8	111679	0.0726	0
YCL064C	3	16880	15798	13	49969	10	69578	0.0998	0
YCR039C	3	200173	199541	3	201166	8	80036	0.0708	1
YCR075C	3	248811	248029	14	449639	15	172654	0.0928	0
YCR096C	3	293534	293175	3	201166	8	80036	0.0963	0
YCR097W	3	294236	294287	3	201166	7	557233	0.0854	0
YCR106W	3	310954	313452	12	1056103	11	590	0.0585	0
YDL217C	4	68607	67984	4	74576	14	486861	0.0663	1
YDL181W	4	135180	135437	15	172654	15	563943	0.0595	0
YDL174C	4	147590	145827	12	671271	4	143910	0.0917	2
YDL127W	4	234927	235853	8	111686	4	192248	0.0686	0
YDL039C	4	382330	381983	4	369366	5	350744	0.0413	0
YDL038C	4	384078	382327	4	369366	5	350744	0.0484	0
YDL037C	4	385584	384598	4	369366	5	350744	0.062	0
YDR043C	4	543366	542671	2	548401	5	395442	0.1015	0
YDR044W	4	546639	547625	12	660992	5	350744	0.0405	0
YDR112W	4	679539	679847	3	76127	13	49969	0.1001	0
YDR111C	4	679759	678236	3	76127	13	49969	0.064	0
YDR133C	4	721292	720957	4	722072	15	172654	0.0296	1
YDR134C	4	721476	721066	4	722072	15	172654	0.0397	1
YDR148C	4	755061	753670	15	172654	15	563943	0.0739	0
YDR178W	4	817945	818490	15	563943	15	172654	0.1026	0
YDR262W	4	993128	993946	4	975086	2	548401	0.0446	0
YDR297W	4	1056545	1057594	4	1041331	12	660992	0.0548	0
YDR320C	4	1108096	1106090	4	1109144	15	141627	0.076	1
YEL038W	5	80420	81145	5	79650	15	154243	0.0949	1
YER001W	5	153519	155807	15	141627	2	562412	0.096	0
YER044C	5	238015	237569	12	660992	5	272256	0.0529	0
YER073W	5	304027	305589	3	90986	13	67735	0.0542	0
YER082C	5	325932	324268	2	548401	4	192248	0.0974	0
YER139C	5	451238	450558	5	442538	15	179409	0.0823	1
YFL061W	6	9545	10222	10	698149	6	17387	0.043	2
YFL060C	6	10969	10301	10	698149	6	17387	0.0369	2
YFL059W	6	11363	12259	6	5852	10	698149	0.0743	1
YFL056C	6	15431	14793	6	17387	10	23514	0.0331	1
YFL055W	6	17004	18680	6	23514	6	17387	0.0092	2
YFL054C	6	22787	20847	6	17387	10	23514	0.0178	1
YFL053W	6	23423	25198	10	34092	6	17387	0.0156	2
YFL052W	6	28232	29629	10	23514	6	17387	0.0777	0
YFL027C	6	81910	80417	3	201166	8	71988	0.1036	0
YFL026W	6	82578	83873	3	201166	8	80036	0.0773	0
YFR026C	6	206245	205736	8	111686	6	208330	0.1049	2
YGL258W	7	11110	11730	10	329085	12	35970	0.0891	0
YGL256W	7	14910	16307	10	325500	12	35970	0.0865	0
YGL208W	7	97342	98589	7	106500	15	172654	0.061	1
YGL204C	7	112009	111704	7	106500	4	573400	0.0765	1
YGL191W	7	144814	145203	12	671271	15	563943	0.0834	0
YGL174W	7	174551	175351	7	167587	14	449639	0.0615	1
YGL138C	7	249536	248499	3	90986	9	258738	0.047	0
YGL090W	7	343322	344587	3	201166	8	111679	0.0233	0
YGL089C	7	345156	344794	3	201166	8	111686	0.0876	0
YGL032C	7	436838	436575	3	201166	8	111686	0.0274	0
YGL009C	7	478657	476318	3	90986	13	67735	0.059	0
YGL001C	7	496506	495457	12	660992	7	488370	0.0769	2
YGR007W	7	506973	507944	12	660992	2	548401	0.0981	0
YGR040W	7	575402	576508	7	557233	2	562412	0.0497	0
YGR049W	7	591318	591881	12	660992	7	592983	0.012	2
YGR050C	7	592446	592090	7	592983	12	674651	0.0462	1
YGR079W	7	640724	641836	2	537314	15	158978	0.088	0
YGR108W	7	703640	705055	9	141014	13	328865	0.079	0
YGR126W	7	745840	746532	7	795526	10	67350	0.1032	0
YGR146C	7	784863	784228	3	79091	8	111686	0.0672	0
YGR163W	7	827557	828582	2	565216	3	90986	0.0605	0
YGR235C	7	962064	961363	12	660992	9	296453	0.1029	0
YHR007C	8	121677	120085	8	98516	12	660992	0.032	0
YHR016C	8	138400	138233	15	172654	14	486861	0.0984	0
YHR072W	8	239099	241294	12	660992	8	248252	0.0872	2
YHR080C	8	266839	262802	15	172654	2	372476	0.0421	0
YHR115C	8	341361	340111	8	316306	2	537314	0.1039	0
YHR162W	8	423074	423463	13	42129	3	79091	0.0846	0
YHR178W	8	459298	461529	3	201166	16	535078	0.0752	0
YHR198C	8	497279	496314	15	172654	14	449639	0.0717	0
YHR218W	8	558615	558713	12	1056097	4	1501558	0.0887	0

YIL169C	9	26106	23119	15	8341	2	554641	0.1005	0
YIL121W	9	132241	133869	12	677962	3	90986	0.0218	0
YIL119C	9	137874	136651	13	328865	9	139479	0.0454	2
YIL087C	9	200116	199643	9	199116	15	172654	0.0341	1
YIL082W	9	205632	206504	7	708912	9	258738	0.0894	0
YIL080W	9	206482	206482	8	111686	9	190988	0.0935	0
YIL082W-A	9	206483	206483	7	708912	8	111686	0.051	0
YIL015W	9	322340	324103	3	201166	8	80036	0.0253	0
YIR017C	9	384116	383553	3	75021	10	387893	0.1046	0
YIR019C	9	393672	389569	5	395442	9	399057	0.0649	2
YJL171C	10	100888	99698	10	87113	3	201166	0.058	0
YJL170C	10	101695	101144	3	201166	8	111686	0.0309	0
YJL150W	10	137041	137343	3	201166	2	256896	0.0438	0
YJL108C	10	218773	217622	10	216786	12	660992	0.0635	1
YJR004C	10	444775	442823	3	201166	8	111686	0.0209	0
YJR015W	10	462635	464167	10	461201	3	105042	0.0654	1
YJR016C	10	466122	464365	3	90986	13	67735	0.0625	0
YJR077C	10	578104	577169	15	563943	15	172654	0.0721	0
YJR104C	10	622927	622463	10	628109	15	179409	0.06	1
YJR113C	10	638890	638147	2	517365	14	449639	0.097	0
YJR120W	10	647041	647391	15	563943	15	172654	0.0806	0
YJR127C	10	662974	658832	10	646911	15	172654	0.0827	0
YJR148W	10	705659	706789	13	49969	3	105042	0.0536	0
YKL217W	11	22234	24084	11	45334	2	513722	0.092	0
YKL140W	11	180784	182430	11	180221	12	681956	0.036	1
YKL135C	11	188647	186467	11	194611	8	80036	0.0819	1
YKL120W	11	216990	217964	3	90986	13	46077	0.0504	0
YKL096W	11	260777	261496	11	261779	15	172654	0.0668	1
YKL085W	11	278768	279772	15	172654	15	563943	0.0991	0
YKL043W	11	356393	357493	11	356622	5	350744	0.0902	1
YKL040C	11	361472	360702	5	395442	15	172654	0.0523	0
YKL030W	11	382141	382746	3	76127	9	243418	0.0785	0
YKL008C	11	428194	426938	12	660992	2	554641	0.0264	0
YKR051W	11	530588	531844	11	527135	12	660992	0.0869	1
YKR080W	11	590037	590999	11	590637	13	49969	0.0477	1
YKR085C	11	599323	598736	11	599170	14	486861	0.0802	1
YKR105C	11	660102	658354	11	651631	16	825431	0.1019	1
YLL028W	12	84803	86563	15	146302	12	86369	0.0554	2
YLL023C	12	98835	97996	12	99261	15	172654	0.0659	1
YLR050C	12	246073	245588	12	254693	12	660992	0.0239	1
YLR109W	12	368782	369312	13	255525	2	562412	0.081	0
YLR118C	12	385409	384726	14	486861	12	381332	0.0956	2
YLR179C	12	514715	514110	12	514835	12	748651	0.0938	1
YLR355C	12	839252	838065	13	46077	3	100213	0.0794	0
YLR382C	12	884751	882067	14	449639	15	154243	0.0713	0
YML123C	13	25801	24038	13	40477	10	36810	0.057	0
YML002W	13	264541	266754	15	563943	15	172654	0.1022	0
YMR008C	13	282584	280590	13	275164	15	179409	0.0942	1
YMR022W	13	318679	319176	13	328865	2	681442	0.0379	1
YMR081C	13	431094	430078	2	507554	4	192248	0.0953	0
YMR096W	13	458407	459300	3	90986	13	67735	0.0967	0
YMR108W	13	484083	486146	3	90986	13	42129	0.0677	0
YMR145C	13	556474	554792	12	660992	15	563943	0.0747	0
YMR306C-A	13	886571	886182	13	885665	10	731761	0.0994	1
YMR321C	13	917894	917577	13	922258	3	75021	0.0898	1
YNL194C	14	273614	272709	15	172654	2	376562	0.0946	0
YNL169C	14	317671	316169	2	537314	3	100213	0.0861	0
YNL078W	14	479767	480990	2	565216	8	111686	0.049	0
YNL065W	14	503723	505483	5	116389	14	502406	0.0695	2
YNL034W	14	570476	572314	14	616445	5	116389	0.0681	0
YNL018C	14	601773	599935	14	578484	5	116389	0.0196	0
YNR019W	14	665339	667267	12	660992	1	42348	0.0931	0
YNR052C	14	720647	719346	14	502406	12	611832	0.069	0
YOL104C	15	117453	116395	15	132423	2	636645	0.0815	0
YOL101C	15	127919	126981	1	42348	7	405999	0.0243	0
YOR051C	15	426085	424847	15	436372	2	548401	0.0781	0
YOR142W	15	593057	594046	15	563943	15	172654	0.0909	0
YOR148C	15	609197	608640	12	674651	7	592983	0.0842	0
YOR153W	15	619840	624375	7	460150	14	486861	0.0838	0
YOR162C	15	641992	639560	3	201166	8	111679	0.0575	0
YOR171C	15	653884	652010	2	405289	12	635380	0.0988	0
YOR221C	15	757737	757537	3	76127	13	28610	0.0704	0
YOR263C	15	819161	818754	2	548401	5	395442	0.1012	0
YOR317W	15	909338	911440	15	172654	12	671271	0.0913	0
YOR388C	15	1072919	1071789	10	43261	15	1069040	0.083	2
YPL276W	16	17948	18385	10	43261	15	1069040	0.0388	0
YPL275W	16	18369	19079	10	61620	2	581702	0.0857	0
YPL271W	16	30079	30267	15	563943	15	172654	0.0645	0
YPL177C	16	213961	213041	5	395442	5	116389	0.073	0
YPL140C	16	289033	287513	14	449639	16	280629	0.0517	2
YPL064C	16	429613	428708	12	660992	16	429185	0.0798	2
YPL061W	16	432585	434087	13	128290	12	634227	0.0924	0
YPL057C	16	453054	451906	16	462646	1	52357	0.0906	1
YPL004C	16	551654	550629	15	172654	15	563943	0.1043	0
YPR150W	16	830995	831516	12	660992	12	955920	0.0756	0
YPR192W	16	921856	922773	16	927503	15	172654	0.063	1