

Table S3

Test of deletion strains version 2.0 for presence of ORFs designated by the consortium to be nonessential.

chromosome	gene	start	end	strand	Number of integrations	Density (integration/kb /million insertions)	Gene description	bands in colony PCR	bands with the same primers in wt.	ORF detected on Southern blot
chr1	rp136a SPAC15E1.03 rpl42	3722509	3723019	+	0	0.00	60S ribosomal protein L36/L42	2	2	√
chr1	ubi1 SPAC11G7.04	3969009	3969395	+	0	0.00	ribosomal-ubiquitin fusion protein Ubi1	1	2	
chr1	SPAC186.06	5542419	5542973	+	0	0.00	human MAWBP homolog	0	2	
chr2	smd3 SPBC19C2.14	1702182	1702628	+	0	0.00	Sm snRNP core protein Smd3	2	2	
chr2	SPBC16A3.16	4267784	4268090	-	0	0.00	mitochondrial inner membrane protein	0	2	
chr3	SPCC14G10.03c ump1	748037	748530	-	0	0.00	proteasome maturation factor Ump1	1	2	
chr3	SPCC162.01c	1587869	1588603	+	0	0.00	RNA-binding protein	2	2	
chr1	rhp54 rad54 SPAC15A10.03c	3680587	3683145	-	1	1.08	Rad54 homolog Rhp54	0	2	
chr2	SPBC577.06c	758408	764229	-	4	1.91	phosphatidylinositol kinase	2	2	
chr2	tif213 SPBC17G9.09	2187712	2189052	+	1	2.07	translation initiation factor eIF2 gamma subunit	2	2	√
chr2	arp5 SPBC365.10	2512667	2514887	+	2	2.50	actin-like protein Arp5	0	2	
chr1	fas1 SPAC926.09c	3900367	3906588	-	6	2.67	fatty acid synthase beta subunit Fas1	2	2	
chr1	SPAC186.03	5535198	5536280	+	1	2.56	L-asparaginase	1	1	
chr1	nup184 SPAP27G11.10c	1625076	1629841	-	6	3.49	nucleoporin Nup184	1	1	
chr1	spt6 SPAC694.07c SPAC1F7.01c	4212706	4216803	-	6	4.06	transcription elongation factor Spt6	2	2	√
chr3	bgs4 orb11 cwg1 SPCC1840.02c	2249279	2255146	-	9	4.25	1,3-beta-glucan synthase subunit Bgs4	2	2	
chr2	gpd1 SPBC215.05	4035814	4036971	+	2	4.79	glycerol-3-phosphate dehydrogenase Gpd1	0	1	
chr3	tif6 SPCC1919.09	2223154	2224257	+	2	5.03	translation initiation factor eIF6	0	2	√
chr1	pub1 SPAC11G7.02	3963323	3965870	+	5	5.44	ubiquitin-protein ligase E3	1	2	
chr2	atp16 SPBC13E7.04	3046873	3047355	+	1	5.74	F1-ATPase delta subunit	2	2	
chr2	SPBC1539.08 arf6	4375857	4376810	+	2	5.82	ADP-ribosylation factor, Arf family	1	2	
chr2	SPBC27B12.08	1335724	1341821	+	13	5.91	AP-1 accessory protein	0	1	
chr1	arp42 arp4 SPAC23D3.09	4353826	4355118	-	3	6.44	SWI/SNF and RSC complex subunit Arp42	0	2	
chr1	SPAC869.04	5511137	5512369	-	3	6.75	formamidase-like protein	1	2	
chr2	ypl7 SPBC405.04c	3147478	3148230	-	2	7.37	GTPase Ypl7	1	1	
chr1	vps28 SPAC1B3.07c	4940690	4941436	-	2	7.43	ESCRT I complex subunit Vps28	0	2	
chr3	SPCC5E4.10c	651622	651994	-	1	7.44	sequence orphan	0	2	
chr2	wis1 spc2 smf2 SPBC409.07c	1143967	1145784	-	5	7.63	MAP kinase kinase Wis1	2	2	
chr1	ies6 SPAC222.04c	950298	950651	-	1	7.84	chromatin remodeling complex subunit Ies6	2	2	
chr1	SPAC664.13	1729505	1729858	+	1	7.84	sequence orphan	2	2	
chr2	SPBPB10D8.01	81295	82953	+	5	8.36	cysteine transporter	0	2	
chr3	rpt4 SPCC1682.16	405612	407251	+	5	8.46	19S proteasome regulatory subunit Rpt4	2	2	√
chr2	sec63 SPBC36B7.03	2387093	2389038	+	6	8.55	ER protein translocation subcomplex subunit Sec63	2	2	√
chr1	SPAC20G8.09c	1415542	1418750	-	10	8.64	N-acetyltransferase Nat10	2	2	
chr2	mcs4 SPBC887.10	3557274	3558842	+	5	8.84	two-component response regulator	0	2	
chr2	SPBC9B6.07	1824562	1825497	+	3	8.89	nucleolar protein Nop52 family	0	2	
chr1	plc1 SPAC22F8.11	4807786	4810485	+	9	9.25	phosphoinositide phospholipase C Plc1	2	2	
chr3	ekc1 SPCC777.16c SPCC663.01c	1626547	1629120	-	16	17.24	protein phosphatase regulatory subunit Ekc1	2	2	
chr1	mcl1 slr3 SPAPB1E7.02c	3283195	3285745	-	16	17.40	DNA polymerase alpha accessory factor Mcl1	0	2	
chr2	swi5 SPBC409.03	1138056	1138530	+	3	17.52	Swi5 protein	1	1	
chr3	pof3 SPCC338.16	1345394	1347127	-	11	17.60	F-box protein Pof3	0	2	
chr1	SPAC6F6.03c	2734109	2736126	-	13	17.87	ribosome export GTPase	2	2	
chr3	SPCC1919.04	2211103	2211873	+	5	17.99	sequence orphan	1	2	
chr1	SPAC16C9.05 cph1	799550	800764	+	8	18.26	PHD finger containing protein	2	2	
chr2	SPBC119.12	740275	741480	+	8	18.40	Golgi matrix protein	0	2	
chr2	lsd1 SPBC146.09c swm1 saf110	1016000	1019002	-	20	18.47	histone demethylase SWIRM1	2	2	
chr2	nfs1 SPBC21D10.11c	2422769	2424265	+	10	18.53	iron-sulfur cluster assembly protein Nfs1	2	2	
chr1	pzh1 SPAC57A7.08	1527964	1529511	-	14	20.09	serine/threonine protein phosphatase Pzh1	0	2	
chr3	set1 SPCC306.04c	412765	415527	-	25	25.10	histone lysine methyltransferase Set1	0	1	
chr3	set9 SPCC4B3.12	1154281	1155606	-	12	25.10	histone lysine methyltransferase Set9	2	2	
chr2	rad3 SPBC216.05	904365	911525	+	65	25.18	ATR checkpoint kinase	0	2	
chr2	pdb1 SPBC30D10.13c	3070543	3071643	+	10	25.19	pyruvate dehydrogenase e1 component beta subunit Pdb1	2	2	
chr1	pds5 SPAC110.02	1912042	1915659	+	33	25.30	cohesin-associated protein Pds5	0	2	
chr1	cit1 SPAC6C3.04	2328675	2330096	+	13	25.36	citrate synthase	2	2	
chr3	ccr4 SPCC31H12.08c SPCC5E4.02c	637461	639533	-	19	25.42	CCR4-Not complex subunit Ccr4	0	2	
chr2	hip3 SPBC31F10.14c hir3	3777778	3782670	-	45	25.51	HIRA interacting protein Hip3	0	2	
chr2	SPBC1685.04	502873	503850	+	9	25.53	sequence orphan	0	1	
chr2	SPBC30D10.14	3067996	3068745	-	9	33.29	dienelactone hydrolase family	0	2	
chr3	SPCC645.13	1258634	1260799	+	26	33.30	transcription elongation regulator	0	2	
chr3	SPCC569.07	2415649	2417061	-	17	33.37	aromatic aminotransferase	0	2	
chr1	atp2 SPAC222.12c	968783	970360	-	19	33.40	F1-ATPase beta subunit	2	2	
chr2	SPBC1A4.05	1984516	1986671	+	26	33.45	sequence orphan	1	2	
chr1	spo15 SPAC1F3.06c	625430	631303	+	71	33.53	sporulation protein Spo15	0	2	
chr1	fh11 SPAC1142.08 SPAC8C9.01	3639988	3642219	+	27	33.55	fork head transcription factor Fh11	0	2	
chr2	amo1 SPBC15D4.10c	3028705	3030192	-	18	33.55	nuclear rim protein Amo1	1	2	
chr1	hem2 SPAC1805.06c	2783941	2784930	-	12	33.62	porphobilinogen synthase Hem2	2	2	
chr2	vps13a SPBC31F10.18c SPBC21C3.01c	3789386	3798703	-	113	33.64	chorein homolog	0	2	
chr1	gmh3 SPAC22E12.06c	5029000	5029998	-	15	41.65	alpha-1,2-galactosyltransferase Gmh3	0	2	
chr3	SPCC1840.07c	2270637	2271635	-	15	41.65	phosphoprotein phosphatase	0	2	
chr3	SPCC622.19 jmj4 mug149	1438375	1439839	+	22	41.65	Jmj4 protein	0	2	
chr1	SPAC24C9.05c mug70	3045121	3047313	-	33	41.74	conserved protein (fungal and plant)	0	2	
chr1	SPAC16E8.17c	3532418	3533413	-	15	41.77	succinate-CoA ligase	0	1	
chr1	SPAC31A2.12	412084	413874	+	27	41.82	arrestin/PY protein 1	0	2	
chr1	msh3 swi4 SPAC8F11.03	2855931	2858980	+	46	41.83	MutS protein homolog 3	0	2	
chr2	SPBC1773.16c	318693	320480	-	27	41.89	transcription factor	0	2	
chr3	SPCC1620.12c	2167799	2169586	-	27	41.89	GTPase activating protein	0	2	
chr1	ldp1 SPAC6G10.08	3231599	3232855	+	19	41.93	isocitrate dehydrogenase ldp1	1	2	