Table S1 Plasmids used in this study

Plasmid	Description	Source
p4339	pCRII-TOPO::natRMX4	Goldstein and McCusker, 1999
pAcSG2		BD Biosciences
pCG10	pRS415-*DBF4* $_{N\Delta 109}$	Gabrielse et al., 2006
pCG40	pAcSG2-*DBF4* $_{N\Delta 109}$	Miller et al., 2009
pCG44	pAcSG2-*DBF4* $_{N\Delta 221}$	Gabrielse et al., 2006
pCG52	pGBKT7-*DBF4* $_{66-227}$	Miller et al., 2009
pCG53	pYJ204-*DBF4* $_{N\Delta 65}$	Miller et al., 2009
pCG60	pCG52$_{ADH1\ promoter-\Delta(-732)-(-802)}$	Miller et al., 2009
pCG63	pCG60 W202E	This study
pCG64	pCG60 W202A	This study
pCG74	pYJ204-*DBF4* $_{N\Delta 109}$	Miller et al., 2009
pCG75	pYJ204-*DBF4* $_{N\Delta 221}$	Miller et al., 2009
pCG91	pAcSG2-*DBF4* $_{N\Delta 65}$	Gabrielse et al., 2006
pCG101	pCG60 GA159,160LL	This study
pCG108	pCG60 F165A	This study
pCG110	pCG60 F166A	This study
pCG146	pCG60 G159Q	This study
pCG265	pGAD-C1-*CDC7* $_{1-507}$	Harkins et al., 2009
pCM16	pAcSG2-3myc-*CDC5* $_{65-705}$	Miller et al., 2009
pCM21	pCG60-*DBF4* $_{66-109}$	Miller et al., 2009
pET24a-GST		Chen and Weinreich, 2010
pGAD-C1		James et al. 1996
pGAD-Cdc5.3	pGAD-C1-*CDC5* $_{421-705}$	Miller et al., 2009
pGAD-YOR.3	pGAD-C3-*MSA169-530*	This study
pGBKT7		Clontech
pJK18	pCG60 T171E	This study
pJK20	pCG60 E108A	This study
pJK22	pCG60 T171S	This study
pJK25	pCG60 V100A	This study
pJK26	pCG60 R103A	This study
pJK27	pCG60 V104A	This study
pJK29	pCG60 P106A	This study
pJK31	pCG60 L109A	This study
pJK33	pCG60 K107A	This study
pJK34	pCG60 T105A E108A	This study
pJK36	pCG60 E108K	This study
pJK37	pCG60 T171A	This study
pJK39	pCG60 E101A	This study
pJK41	pCG60 P102A	This study

pJK45	pYJ204-*DBF4* $_{NΔ81}$	This study
pJK47	pYJ204-*DBF4* $_{NΔ93}$	This study
pJK48	pYJ204-*DBF4* $_{NΔ99}$	This study
pJK49	pCG60 T105S	This study
pJK51	pCG60 K107E	This study
pJK53	pCG60 T131A	This study
pJK55	pCG60 L110A	This study
pJK57	pCG60 E111A	This study
pJK59	pCG60 W112A	This study
pJK61	pCG60 T114A	This study
pJK67	pCG60-*DBF4* $_{Δ94-99}$	This study
pJK76	pYJ204-*DBF4* $_{NΔ88}$	This study
pJK82	pCG60 V104L	This study
pJK83	pCG60 L109V	This study
pJK85	pCG60 W112F	This study
pJK86	pCG60 T188A	This study
pJK89	pCG60 T157A	This study
pJK91	pCG60 T163A	This study
pJK93	pCG60 TT168,169AA	This study
pJK95	pCG60 T175A	This study
pJK97	pYJ319 G653E	This study
pJK99	pYJ319 T654A	This study
pJK101	pYJ319 N655A	This study
pJK103	pYJ380 G653E	This study
pJK105	pYJ380 T654A	This study
pJK107	pYJ380 N655A	This study
pJK108	pCG60 Y127A	This study
pJK110	pCG60 Y139A	This study
pJK112	pCG60 Y198A	This study
pJK114	pCG60 Y204A	This study
pJK121	pCG60 Y127S	This study
pJK122	pCG60 Y127T	This study
pJK124	pCG60 I130A	This study
pJK125	pCG60 T171V	This study
pJK126	pCG60 Y204F	This study
pJK128	pCG60 Y127F	This study
pJK135	pGAD-C1-*DMA1* $_{137-302}$	This study
pJK137	pGAD-C1-*DMA2* $_{246-408}$	This study
pJK149	pCG60 T95A	Chen and Weinreich, 2010
pJK169	pET24a-GST-*RAD53* $_{2-164}$	This study
pJK170	pET24a-GST-*RAD53* $_{2-175}$	This study
pJK171	pET24a-GST-*RAD53* $_{2-279}$	This study

pJK179	pCG60-*DBF4* $_{N\Delta87}$ T105A	This study
pJK181	pCG60-*DBF4* $_{N\Delta99}$ T105A	This study
pJK185	pCG60-*DBF4* $_{N\Delta93}$ T105A	This study
pJK269	pET24a-GST-*RAD53* $_{2-164}$ R70A	This study
pJK275	pGAD-C1-*DUN1* $_{1-160}$	This study
pJK277	pGAD-C1-*FAR10* $_{61-227}$	This study
pJK279	pGAD-C1-*FHL1* $_{253-400}$	This study
pJK281	pGAD-C1-*FKH1* $_{41-185}$	This study
pJK283	pGAD-C1-*MEK1* $_{1-152}$	This study
pJK285	pGAD-C1-*XRS2* $_{1-125}$	This study
pJK287	pGAD-C1-*FKH2* $_{1-254}$	This study
pJK289	pGAD-C1-*PML1* $_{54-204}$	This study
pJK380	pET24a-GST-*RAD53* $_{483-821}$	This study
pJK382	pET24a-GST-*RAD53* $_{549-730}$	This study
pJK410	pYJ380 R605A	This study
pJK420	pET24a-GST-*RAD53* $_{523-821}$	This study
pJK468	pCG60 R209E	This study
pJK469	pCG60 K212E	This study
pJK487	pCG60 K206E	This study
pJK542	pRS415-DBF4$_{N\Delta94}$	This study
pJK544	pCG60-DBF4$_{N\Delta94}$	This study
pMW1	pAcPK30-*DBF4* $_{1-704}$	Gabrielse et al., 2006
pMW47	pAcSG2-HAHIS6-*CDC7* $_{1-507}$	Gabrielse et al., 2006
pMW489	pRS415-*DBF4* $_{1-704}$	Gabrielse et al., 2006
pMW490	pRS416-*DBF4* $_{1-704}$	Gabrielse et al., 2006
pMW526	pRS415-*DBF4* $_{N\Delta65}$	Gabrielse et al., 2006
pRS415	*LEU2 ARS-CEN*	Sikorski and Hieter, 1989
pRS416	*URA3 ARS-CEN*	Sikorski and Hieter, 1989
pYJ3	pCG60-*DBF4* $_{\Delta67-81}$	Chen and Weinreich, 2010
pYJ4	pCG60-*DBF4* $_{\Delta67-88}$	Chen and Weinreich, 2010
pYJ5	pCG60-*DBF4* $_{\Delta67-93}$	Chen and Weinreich, 2010
pYJ6	pCG60-*DBF4* $_{\Delta67-99}$	Chen and Weinreich, 2010
pYJ7	pCG60-*DBF4* $_{\Delta67-103}$	Chen and Weinreich, 2010
pYJ8	pCG60-*DBF4* $_{\Delta67-107}$	Chen and Weinreich, 2010
pYJ9	pCG60-*DBF4* $_{N\Delta109}$	Chen and Weinreich, 2010
pYJ16	pCG60 S84A	Chen and Weinreich, 2010
pYJ30	pCG60 R83E	Chen and Weinreich, 2010
pYJ38	pCG60-*DBF4* $_{\Delta82-88}$	Miller et al., 2009
pYJ74	pMW489-*DBF4* $_{\Delta82-88}$	Chen and Weinreich, 2010
pYJ167	pCG60 S92A	Chen and Weinreich, 2010
pYJ182	pAcSG2-*DBF4* $_{\Delta82-88}$	Chen and Weinreich, 2010
pYJ193	pMW489-*DBF4* $_{\Delta76-109}$	This study

pYJ195	pMW489-*DBF4* $_{\Delta 82\text{-}109}$	This study
pYJ198	pMW489-*DBF4* $_{\Delta 66\text{-}109}$	This study
pYJ201	pMW489-*DBF4* $_{N\Delta 65\text{-}\Delta 82\text{-}88}$	Chen and Weinreich, 2010
pYJ204	pGBKT7-*DBF4* $_{1\text{-}704}$	Miller et al., 2009
pYJ206	pYJ204-*DBF4* $_{\Delta 82\text{-}88}$	Miller et al., 2009
pYJ218	pMW489-*DBF4* $_{\Delta 89\text{-}109}$	This study
pYJ219	pMW489-*DBF4* $_{\Delta 100\text{-}109}$	This study
pYJ222	pMW489-*DBF4* $_{\Delta 94\text{-}109}$	This study
pYJ308	pGAD-C1-*RAD53* $_{1\text{-}300}$	This study
pYJ319	pGAD-C1-*RAD53* $_{1\text{-}821}$	This study
pYJ326	pCG60-*DBF4* $_{\Delta 89\text{-}93}$	Chen and Weinreich, 2010
pYJ332	pCG60-*DBF4* $_{\Delta 100\text{-}109}$	This study
pYJ336	pCG60 T105A	This study
pYJ340	pMW489-*DBF4* $_{\Delta 82\text{-}88\text{-}\Delta 100\text{-}109}$	This study
pYJ355	pYJ308 R70A	This study
pYJ368	pCG60-*DBF4* $_{66\text{-}190}$	This study
pYJ372	pCG60-*DBF4* $_{66\text{-}150}$	This study
pYJ380	pGAD-C1-*RAD53* $_{483\text{-}821}$	This study
pYJ384	pYJ319 R70A	This study
pYJ388	pYJ319 R605A	This study
pYJ392	pCG60 T105E	This study
pYJ394	pCG60 T105D	This study
pYJ422	pAcSG2-*DBF4* $_{\Delta 100\text{-}109}$	This study
pYJ424	pAcSG2-*DBF4* $_{\Delta 82\text{-}88\text{-}\Delta 100\text{-}109}$	This study
pYJ426	pMW489-*DBF4* $_{N\Delta 65\text{-}\Delta 100\text{-}109}$	This study
pYJ428	pAcSG2-*RAD53* $_{1\text{-}821}$	This study
pYJ461	pYJ204 R83E	This study
pYJ462	pYJ204-*DBF4* $_{\Delta 100\text{-}109}$ R83E	This study
pYJ464	pYJ204-*DBF4* $_{\Delta 100\text{-}109}$	This study
pYJ466	pYJ204-*DBF4* $_{\Delta 82\text{-}88\text{-}\Delta 100\text{-}109}$	This study
pYJ489	pCG60 E101K	This study
pYJ491	pCG60 R103E	This study
pYJ493	pCG60 Q113A	This study
pYJ494	pYJ204-*DBF4* $_{N\Delta 81\text{-}\Delta 100\text{-}109}$	This study
pYJ497	pYJ204-*DBF4* $_{N\Delta 93\text{-}\Delta 100\text{-}109}$	This study
pYJ507	pCG60 E108D	This study
pYJ512	pCG60 T138A	This study
pYJ535	pGAD-C1-*DBF4* $_{66\text{-}227}$	This study