

**79 yeast genes involved in modulating replicative (RLS) and/or chronological (CLS) life span**  
 (from <http://uwaging.org/genesdb/> and <http://www.yeastgenome.org>)

Deletion of	ORF	effect on RLS	effect on CLS	Reference
ada1	YPL254W	shortened		Sinclair et al., 1997
agp1	YCL025C		extended	Powers et al., 2006
atp2	YJR121W		shortened	Fabrizio et al., 2003
bcy1	YIL033C	shortened		Sun et al., 1994
bnaf6	YFR047C		shortened	Tahara et al., 2007
bud6	YLR319C	abnormal		Shchebrova et al., 2008
cat5	YOR125C		shortened	Francis et al., 2007
ccr4	YAL021C	shortened		Kaeberlein and Guarente, 2002
cdc25-10 allele	YLR310C	extended		Lin et al., 2000
cdc6-1 allele	YJL194W	extended		Sinclair and Guarente, 1997
cdc7 allele	YDL017W	shortened		Jazwinski et al., 1989
coq3	YOL096C		shortened	Fabrizio et al., 2003
ctf4	YPR135W	shortened		Hoopes et al., 2002
cyr1	YJL005W		extended	Fabrizio et al., 2001
dna2	YHR164C	shortened		Hoopes et al., 2002
dnm1	YLL001W	extended		Scheckhuber et al., 2007
fob1	YDR110W	extended		Defossez et al., 1999
gln3	YER040W		extended	Powers et al., 2006
gpa2	YER020W	extended		Lin et al., 2000
gpr1	YDL035C	extended		Lin et al., 2000
hap5	YOR358W	shortened		Sinclair et al., 1997
hdf1	YMR284W	shortened		Kaeberlein et al., 1999
hdf2	YMR106C	shortened		Kaeberlein et al., 1999
hpr5	YJL092W	shortened		McVey et al., 2001
hxx2	YGL253W	extended		Lin et al., 2000
idh2	YOR136W	extended		Kaeberlein et al., 2005
ipt1	YDR072C		extended	Aerts et al., 2006
irc14	YOR135C	extended		Kaeberlein et al., 2005
lag1	YHL003C	extended		D'mello et al., 1994
lys12	YIL094C		extended	Powers et al., 2006
mep2	YNL142W		extended	Powers et al., 2006
mep3	YPR138C		extended	Powers et al., 2006
mpt5	YGL178W	shortened		Kennedy et al., 1997; Kaeberlein and Guarente, 2002
mtc4	YBR255W	extended		Kaeberlein et al., 2005
nca3	YJL116C	shortened		Austriaco, 1996a
nmt1-451D	YLR195C	shortened		Ashrafi et al., 2000
npt1	YOR209C	shortened		Lin et al., 2000
pde2	YOR360C	shortened		Lin et al., 2000
phb1	YGR132C	shortened		Coates et al., 1997
phb2	YGR231C	shortened		Coates et al., 1997
pol1 allele	YNL102W	shortened		Hoopes et al., 2002
rad27	YKL113C	shortened		Hoopes et al., 2002
rad51	YER095W	shortened		Park et al., 1999
rad52	YML032C	shortened		Park et al., 1999
rad9	YDR217C	shortened		Kennedy et al., 1994
ras1	YOR101W	extended	shortened	Sun, 1994
ras2	YNL098C	shortened	extended	Fabrizio et al., 2003; Sun et al., 1994
rei1	YBR267W	extended		Kaeberlein et al., 2005
rif1	YBR275C	shortened		Austriaco and Guarente, 1997
rom2	YLR371W	extended		Kaeberlein et al., 2005

Deletion of	ORF	effect on RLS	effect on CLS	Reference
rpd3	YNL330C	extended		Kim et al., 1999
rpl31A	YDL075W	extended		Kaeberlein et al., 2005
rpl6B	YLR448W	extended		Kaeberlein et al., 2005
rsr1	YGR152C	shortened		Jazwinski et al., 1998
rtg2	YGL252C	shortened		Kirchman et al., 1999
rtg3	YBL103C	extended		Jiang et al., 2000
sch9	YHR205W	extended	extended	Fabrizio et al., 2001; Fabrizio et al., 2004
scp1	YOR367W	extended		Gourlay et al., 2004
sgs1	YMR190C	shortened		Sinclair et al., 1997
sim1	YIL123W	shortened		Austriaco, 1996a
sip1	YDR422C	shortened		Ashrafi et al., 2000
sip2	YGL208W	shortened		Ashrafi et al., 2000
sir2	YDL042C	shortened		Kaeberlein et al., 1999
sir4	YDR227W	shortened		Kaeberlein et al., 1999
skn1	YGR143W		extended	Aerts et al., 2006
slm6	YBR266C	extended		Kaeberlein et al., 2005
sod1	YJR104C	shortened	shortened	Wawryn et al., 2002; Longo et al., 1996; Longo et al., 1999
sod2	YHR008C	shortened	shortened	Wawryn et al., 1999; Longo et al., 1996
sun4	YNL066W	shortened		Austriaco, 1996a
swi4	YER111C	shortened		Kaeberlein and Guarente, 2002
tma19	YKL056C	extended		Rinnerthaler et al., 2006
tpk2	YPL203W	extended		Lin et al., 2000
ure2	YNL229C	extended		Kaeberlein et al., 2005
uth1 allele	YKR042W	extended		Kennedy et al., 1995
uth3 allele		extended		Kennedy et al., 1995
YBR238C	YBR238C	extended		Kaeberlein et al., 2005
yme1	YPR024W		shortened	Francis et al., 2007
zds1	YMR273C	extended		Roy and Runge, 2000
zds2	YML109W	shortened		Roy and Runge, 2000

Reagents				
Sodium			extended	Fabrizio et al., 2003
Resveratrol		extended	no effect	Howitz et al., 2003
Heat shock		extended		Shama et al, 1998a
Butein		extended		Howitz et al., 2003
Antimycin A			shortened	Fabrizio et al., 2003
D-sorbitol		extended		Kaeberlein et al., 2002
Caloric		extended		Lin et al., 2000
FCCP			extended	Fabrizio et al., 2003
Fisetin		extended		Howitz et al., 2003
Paraquat			shortened	Fabrizio et al., 2003