

**Table S6 Position weight matrices of the motifs enriched in the oxidative stress cluster.** These motifs were determined using the SCOPE server (<http://genie.dartmouth.edu/scope/>).

PWM: Similar to K31 from Kellis, M. et al., in Nature (2003), with p value  $1.61 \times 10^{-5}$  as determined by STAMP.

	m	t	k	a	s	t	a	a
a	29	0	0	54	0	0	54	54
c	25	0	0	0	32	0	0	0
g	0	0	9	0	22	0	0	0
t	0	54	45	0	0	54	0	0

PWM: Similar to K25 with  $7 \times 10^{-5}$  from Kellis, M. et al., in Nature (2003), with p value  $1.61 \times 10^{-5}$  as determined by STAMP.

	c	n	c	g	g	m
a	0	12	0	0	0	25
c	49	8	49	0	0	24
g	0	17	0	49	49	0
t	0	12	0	0	0	0