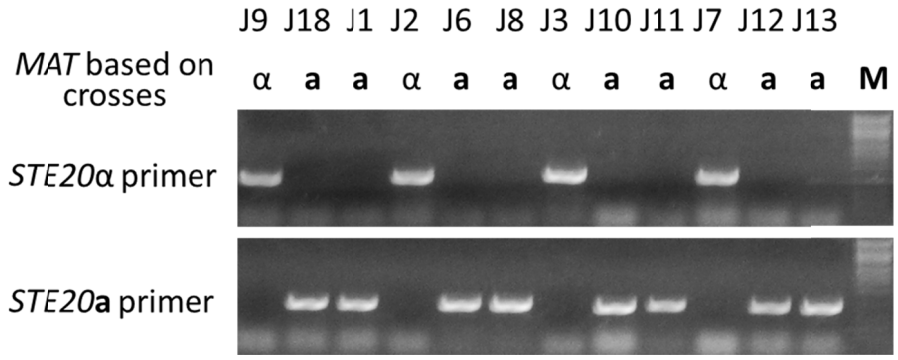
SUPPLEMENTAL MATERIAL

SUPPLEMENTAL TABLE 1 RFLP markers used in comparing the parental strains XL280p and JEC20**a**.

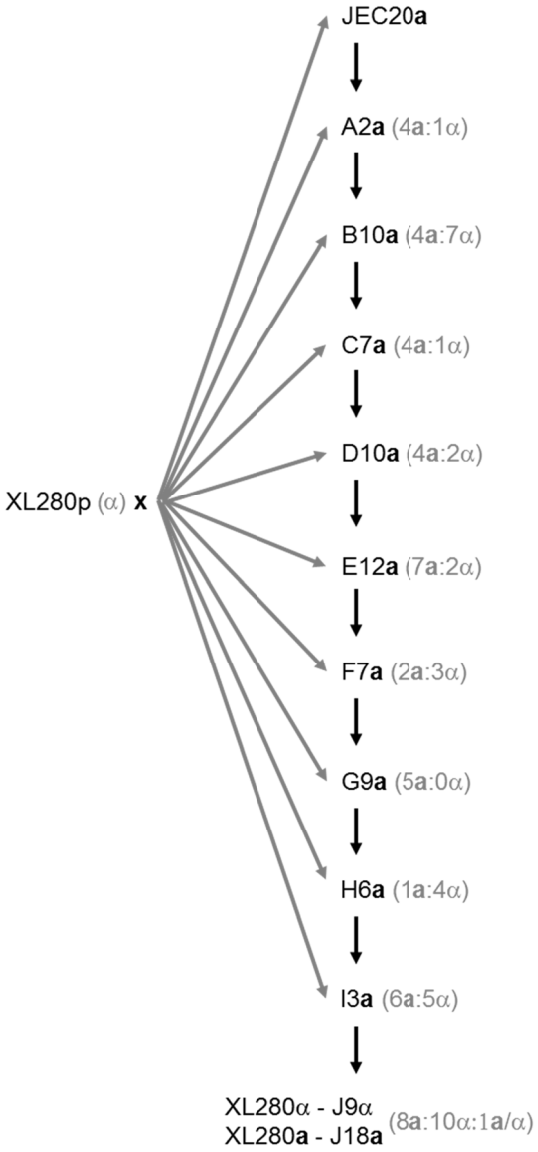
Marker name	Chromosome	Primer sequences (5'-3')	Polymorphic
Hind28	1	GGTGTGCTACATCTCTTGGTTG TCATCATGTCTCATGCAGCTTAC	No
Eco23	2	TATTTAGGTATGGCCGATTGTG TGCCCAACTCTCTTCCTATTTC	No
Pst19	3	AACCTCGTGGAGTCTTTGTCC CTGGATCATGGCTAGATGATTG	Yes
Hind8	3	CTTGATGCTCTTTATGGGGAAG TGTGCCAAGGTTATGGAGATG	Yes
Hind33	4	AGTCACTCTGACACCTCAGTCG CTTACTTGAAGACTCCCGTTCG	Yes
Hind10	4	CGGTATGTCAATGCTCTCAATC TTTCTCCACCTCTGGAAACAAC	No
Hind34	5	AGTCCTCCTCTCCGGGTATTC AGAGCAATGACCCTGTCCAC	Yes
Hind13	6	GTGATCATGCAGAACTTGGTGT CCGAGATGTCGAAGAAGAAGAT	Yes
Hind19	7 or 8	GCCACTCTTCATTCTTCCTCTG TCAACGCCTTCTTCTTCTTCTC	Yes
Hind25	7 or 11	TCATAGTCTCGGCGTATGTCTC ATGGGTTGGCTCTGTTTGTC	No
Hind11	10	ATACGACATACAAGGAGGGTCTG TGATTGACCTGCACAGAGAAAC	Yes
Hind9	12	GGATTCGGCGTTCTATACAGTC TTGCTGATTCAAGTTGTTGCTC	Yes
Hind15	13	GCTATGTGCCTACTGCTACTGG CCGACTCTGCTTCTCATACTTG	No

The restriction enzymes used were EcoRI (Eco), HindIII (Hind), or PstI (Pst). Polymorphic indicates whether or not there was a polymorphism between strains JEC20**a** and XL280p.

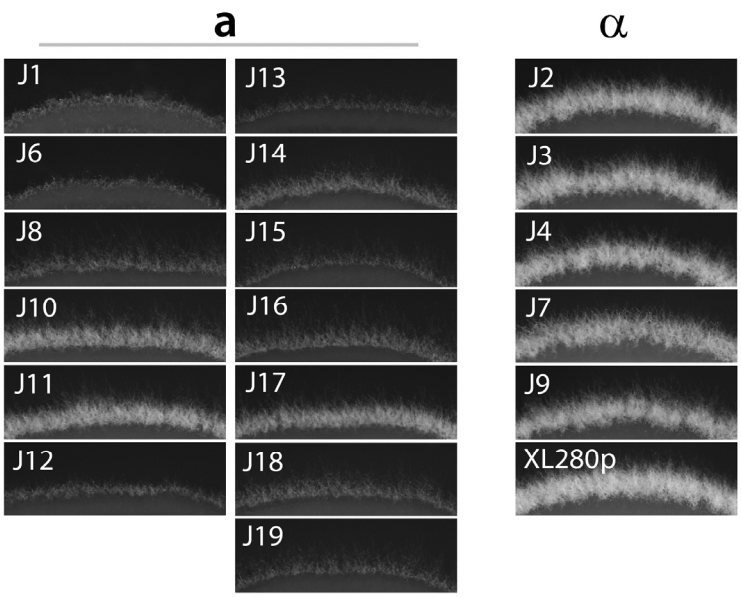
Supplemental Figures



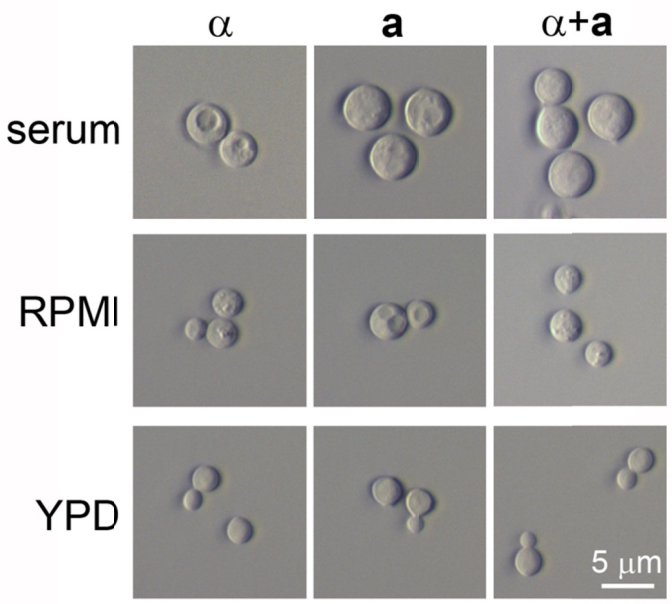
SUPPLEMENTAL FIG 1 The mating type determined by crosses is the same as determined by amplification of the *MAT*-specific *STE20* gene. Progeny from the J generation were randomly selected (strain number indicated above). The mating type, based on crosses with reference strains JEC21α and JEC20**a**, is indicated below their strain number. Gel images of PCR amplicons specific for *STE20*α and *STE20***a** of these strains are shown below.



SUPPLEMENTAL FIG 2 The pedigree of the congenic pair strains XL280α and XL280**a**. The progeny with the **a** mating type from a cross was selected at random and used for the next backcross with XL280p. The series of backcrosses gave rise to the congenic pair strains XL280α and XL280**a**.



SUPPLEMENTAL FIG 3 Enhanced self-filemantation is associated with the α mating type locus. All progeny generated in the ten backcrosses (generation J) were examined for self-filamentation on V8 juice agar medium at 22°C in the dark. The parental XL280p strain was also cultured under the same condition for comparison. All the α isolates examined produced filaments as robustly as the parental XL280p strain. By comparison, all the **a** isolates filamented relatively poorly, with strain to strain variations.



SUPPLEMENTAL FIG 4 The congenic strains maintained yeast growth when cultured under *in vitro* conditions that are relevant to host physiology. Strains XL280α, XL280**a**, and the mixture of equal number of XL280α and XL280**a** were inoculated into fetal bovine serum, RPMI medium, or YPD medium with the final cell density of $1x10^5$ cells/ml. The cells were incubated at 37°C with 5% CO_2. Photographs were taken after 3 days of incubation. All cells were in the yeast form and no filaments were observed.