Table S6a. GFP fluorescence values of mating mutants in Figure 3.
These mutants were made by disrupting the indicated gene with *URA3*.

	Replicate 1	Replicate 2	Replicate 3	Mean	pvalue	Parent strain	Genotype
Negative Control BY4741, Un	3974	3955	3822	3917			*leu2Δ0 met15Δ0 ura3Δ0 his3Δ1*
Negative Control BY4741, In	3688	3603	4069	3786.667			*leu2Δ0 met15Δ0 ura3Δ0 his3Δ1*
Positive Control yAS38, Un	56109	51572	55000	54227			*leu2Δ0 met15Δ0 ura3Δ0 his3Δ1 bar1::pFus1-GFP-LEU2*
Positive Control yAS38, In	5.29E+05	6.89E+05	5.95E+05	6.04E+05			*leu2Δ0 met15Δ0 ura3Δ0 his3Δ1 bar1::pFus1-GFP-LEU2*
dig1, Un	63300	64245	61138	62894.333	0.00623	yAS38	*dig1Δ::URA3 leu2Δ0 met15Δ0 ura3Δ0 his3Δ1*
dig1, In	6.46E+05	6.39E+05	6.56E+05	647000	0.412	yAS38	*dig1Δ::URA3 leu2Δ0 met15Δ0 ura3Δ0 his3Δ1*
dig2, Un	41035	39913	43066	41338	0.00144	yAS38	*dig2Δ::URA3 leu2Δ0 met15Δ0 ura3Δ0 his3Δ1*
dig2, In	7.19E+05	7.09E+05	7.07E+05	711666.667	0.0825	yAS38	*dig2Δ::URA3 leu2Δ0 met15Δ0 ura3Δ0 his3Δ1*
fus3, Un	88301	88423	90833	89185.667	2.57E-05	yAS38	*fus3Δk::URA3 leu2Δ0 met15Δ0 ura3Δ0 his3Δ1*
fus3, In	4.44E+05	4.72E+05	4.20E+05	445333.333	0.0311	yAS38	*fus3Δk::URA3 leu2Δ0 met15Δ0 ura3Δ0 his3Δ1*
sir1, Un	16165	17262	20535	17987.333	4.40E-05	yAS38	*sir1Δ::URA3 leu2Δ0 met15Δ0 ura3Δ0 his3Δ1*
sir1, In	26394	38328	34506	33076	0.000253	yAS38	*sir1Δ::URA3 leu2Δ0 met15Δ0 ura3Δ0 his3Δ1*
sir2, Un	5420	5612	5315	5449	3.670E-06	yAS38	*sir2Δ::URA3*

							leu2Δ0 met15Δ0 ura3Δ0 his3Δ1
sir2, In	5377	5465	5354	5398.667	0.000208	yAS38	sir2Δ::URA3 leu2Δ0 met15Δ0 ura3Δ0 his3Δ1
ste2, Un	56435	56641	55791	56289	0.212	yAS38	ste2Δ::URA3 leu2Δ0 met15Δ0 ura3Δ0 his3Δ1
ste2, In	59623	61286	60690	60533	0.000304	yAS38	ste2Δ::URA3 leu2Δ0 met15Δ0 ura3Δ0 his3Δ1
ste3, Un	47584	49095	46215	47631.333	0.0146	yAS38	ste3Δ::URA3 leu2Δ0 met15Δ0 ura3Δ0 his3Δ1
ste3, In	6.97E+05	7.74E+05	7.96E+05	755666.667	0.0520	yAS38	ste3Δ::URA3 leu2Δ0 met15Δ0 ura3Δ0 his3Δ1
ste4, Un	61410	62183	58905	60832.667	0.0173	yAS38	ste4Δ::URA3 leu2Δ0 met15Δ0 ura3Δ0 his3Δ1
ste4, In	6.39E+05	6.07E+05	6.26E+05	624000	0.699	yAS38	ste4Δ::URA3 leu2Δ0 met15Δ0 ura3Δ0 his3Δ1
ste5, Un	5968	6136	6216	6106.667	3.89E-06	yAS38	ste5Δ::URA3 leu2Δ0 met15Δ0 ura3Δ0 his3Δ1
ste5, In	5740	5565	5633	5646	0.000208	yAS38	ste5Δ::URA3 leu2Δ0 met15Δ0 ura3Δ0 his3Δ1
ste6, Un	50461	50407	50085	50317.667	0.0463	yAS38	ste6Δ::URA3 leu2Δ0 met15Δ0 ura3Δ0 his3Δ1
ste6, In	7.42E+05	7.36E+05	7.54E+05	744000	0.0404	yAS38	ste6Δ::URA3 leu2Δ0 met15Δ0 ura3Δ0 his3Δ1
ste13, Un	43687	39854	38229	40590	0.00299	yAS38	ste13Δ::URA3 leu2Δ0 met15Δ0 ura3Δ0 his3Δ1
ste13, In	7.34E+05	7.11E+05	7.27E+05	724000	0.0633	yAS38	ste13Δ::URA3 leu2Δ0 met15Δ0 ura3Δ0 his3Δ1
ste14, Un	27590	29916	29729	29078.333	8.58E-05	yAS38	ste14Δ::URA3 leu2Δ0 met15Δ0 ura3Δ0 his3Δ1
ste14, In	6.69E+05	6.67E+05	6.56E+05	66400	0.270	yAS38	ste14Δ::URA3

				0			*leu2Δ0 met15Δ0 ura3Δ0 his3Δ1*
ste20, Un	11725	13814	13936	13158. 333	1.18E-05	yAS38	*ste20Δ::URA3 leu2Δ0 met15Δ0 ura3Δ0 his3Δ1*
ste20, In	28175	35014	34960	32716. 333	0.000251	yAS38	*ste20Δ::URA3 leu2Δ0 met15Δ0 ura3Δ0 his3Δ1*
ste23, Un	51048	46019	46675	47914	0.0390	yAS38	*ste23Δ::URA3 leu2Δ0 met15Δ0 ura3Δ0 his3Δ1*
ste23, In	7.47E+05	7.38E+05	7.30E+05	73833 3.333	0.0454	yAS38	*ste23Δ::URA3 leu2Δ0 met15Δ0 ura3Δ0 his3Δ1*
ste24, Un	34709	33392	32364	33488. 333	0.000169	yAS38	*ste24Δ::URA3 leu2Δ0 met15Δ0 ura3Δ0 his3Δ1*
ste24, In	7.00E+05	6.97E+05	7.04E+05	70033 3.333	0.108	yAS38	*ste24Δ::URA3 leu2Δ0 met15Δ0 ura3Δ0 his3Δ1*

Table S6b. GFP fluorescence values of mating mutants in Figure 3, continued.

	Δ marker	Replicate 1	Replicate 2	Replicate 3	Mean	pvalue	Parent strain	Genotype
Negative Control BY4741, Un	kanMX	3952	4049	3976	3992.333		yAS38	leu2Δ0 met15Δ0 ura3Δ0 his3Δ1
Negative Control BY4741, In	kanMX	3984	3892	3868	3914.667		yAS38	leu2Δ0 met15Δ0 ura3Δ0 his3Δ1
Positive Control yAS38, Un	kanMX	57279	58776	55558	57204.333		yAS38	leu2Δ0 met15Δ0 ura3Δ0 his3Δ1 bar1::pFus1-GFP-LEU2
Positive Control yAS38, In	kanMX	4.81E+05	4.90E+05	4.85E+05	485333.333		yAS38	leu2Δ0 met15Δ0 ura3Δ0 his3Δ1 bar1::pFus1-GFP-LEU2
kss1, Un	kanMX	83433	84598	82443	83491.333	1.95E-05	yAS38	kss1Δ::kanMX leu2Δ0 met15Δ0 ura3Δ0 his3Δ1
kss1, In	kanMX	5.80E+05	5.92E+05	5.20E+05	564000	0.0247	yAS38	kss1Δ::kanMX leu2Δ0 met15Δ0 ura3Δ0 his3Δ1
ste4, Un	kanMX	5699	5246	5577	5507.333	6.53E-07	yAS38	ste4Δ::kanMX leu2Δ0 met15Δ0 ura3Δ0 his3Δ1
ste4, In	kanMX	5510	5154	5483	5382.333	5.21E-09	yAS38	ste4Δ::kanMX leu2Δ0 met15Δ0 ura3Δ0 his3Δ1
ste7, Un	kanMX	5135	5168	5168	5157	6.10E-07	yAS38	ste7Δ::kanMX leu2Δ0 met15Δ0 ura3Δ0 his3Δ1
ste7, In	kanMX	5051	4936	5029	5005.333	5.18E-09	yAS38	ste7Δ::kanMX leu2Δ0 met15Δ0 ura3Δ0 his3Δ1
ste8/sir3, Un	URA3	5151	5380	7667	6066	1.991E-06	yAS38	steΔ8::kanMX leu2Δ0 lys2Δ0 ura3Δ0 his3Δ1 met15Δ0 bar1::pFUS1-GFP-LEU2

ste8/sir3, In	*URA3*	4504	4656	6226	5128.667	5.66E-09	yAS38	*steΔ8::kanMX leu2Δ0 lys2Δ0 ura3Δ0 his3Δ1 met15Δ0 bar1::pFUS1-GFP-LEU2*
ste9/sir4, Un	*kanMX*	4655	4481	4359	4498.333	5.90E-07	yAS38	*ste9/sir4Δ::kanMX leu2Δ0 met15Δ0 ura3Δ0 his3Δ1*
ste9/sir4, In	*kanMX*	4451	4284	3988	4241	5.17E-09	yAS38	*ste9/sir4Δ::kanMX leu2Δ0 met15Δ0 ura3Δ0 his3Δ1*
ste11, Un	*kanMX*	5474	5264	5311	5349.667	6.24E-07	yAS38	*ste11Δ::kanMX leu2Δ0 met15Δ0 ura3Δ0 his3Δ1*
ste11, In	*kanMX*	5227	5196	5153	5192	5.19E-09	yAS38	*ste11Δ::kanMX leu2Δ0 met15Δ0 ura3Δ0 his3Δ1*
ste12, Un	*kanMX*	4085	3950	4058	4031	5.62E-07	yAS340	*ste12Δ::kanMX leu2Δ0 lys2Δ0 ura3Δ0 his3Δ1 bar1::pFUS1-GFP-LEU2*
ste12, In	*kanMX*	3733	3673	3697	3701	5.12E-09	yAS340	*ste12Δ::kanMX leu2Δ0 lys2Δ0 ura3Δ0 his3Δ1 bar1::pFUS1-GFP-LEU2*
ste18, Un	*kanMX*	5885	5936	5603	5808	6.57E-07	yAS340	Replicate 1: *ste18Δ::kanMX leu2Δ0 ura3Δ0 his3Δ1 met15Δ0 bar1::pFUS1-GFP-LEU2* Replicates 2 and 3: *ste18Δ::kanMX leu2Δ0 lys2Δ0 ura3Δ0 his3Δ1 met15Δ0 bar1::pFUS1-GFP-LEU2*
ste18, In	*kanMX*	5365	5479	5262	5368.667	5.199E-09	yAS340	Replicate 1: *ste18Δ::kanMX leu2Δ0 ura3Δ0*

| | | | | | | | | his3Δ1 met15Δ0 bar1::pFUS1-GFP-LEU2

Replicates 2 and 3: ste18Δ::kanMX leu2Δ0 lys2Δ0 ura3Δ0 his3Δ1 met15Δ0 bar1::pFUS1-GFP-LEU2 |
|---|---|---|---|---|---|---|---|---|
| **ste21, Un** | *kanMX* | 18732 | 20256 | 19327 | 19438.333 | 3.304E-06 | yAS38 | *ste21Δ::kanMX leu2Δ0 met15Δ0 ura3Δ0 his3Δ1* |
| **ste21, In** | *kanMX* | 204612 | 201627 | 235408 | 213882.333 | 1.663E-05 | yAS38 | *ste21Δ::kanMX leu2Δ0 met15Δ0 ura3Δ0 his3Δ1* |
| **ste22, Un** | *kanMX* | 47794 | 50171 | 51062 | 49675.667 | 0.005 | yAS38 | *ste22Δ::kanMX leu2Δ0 met15Δ0 ura3Δ0 his3Δ1* |
| **ste22, In** | *kanMX* | 4.79E+05 | 4.84E+05 | 4.95E+05 | 486000 | 0.172 | yAS38 | *ste22Δ::kanMX leu2Δ0 met15Δ0 ura3Δ0 his3Δ1* |
| **ste50, Un** | *kanMX* | 9754 | 10005 | 11321 | 10360 | 1.504E-06 | yAS38 | *ste50Δ::kanMX leu2Δ0 met15Δ0 ura3Δ0 his3Δ1* |
| **ste50, In** | *kanMX* | 37826 | 40050 | 41722 | 39866 | 9.874E-09 | yAS38 | *ste50Δ::kanMX leu2Δ0 met15Δ0 ura3Δ0 his3Δ1* |