

**S2 Table. Distribution of crossover types among all spores**

Chromosome III genotype	<i>S. c. ZIP1</i>		<i>K.I. ZIP1</i>		<i>S. c. ZIP1 msh4Δ</i>		<i>K.I. ZIP1 msh4Δ</i>	
	# spores	% total	# spores	% total	# spores	% total	# spores	% total
<b>Total number of spores</b>	<b>2341</b>		<b>3249</b>		<b>3636</b>		<b>4383</b>	
<b>Parental</b>	730	<b>31.2</b>	1162	<b>35.8</b>	2051	<b>56.4</b>	1883	<b>43.0</b>
<b>Single CO</b>								
<i>HIS4-CEN3</i>	230	9.8	334	10.3	191	5.3	344	7.8
<i>CEN3-MAT</i>	168	7.2	389	12.0	186	5.1	492	11.2
<i>MAT-RAD18</i>	450	19.2	351	10.8	604	16.6	471	10.7
<i>RAD18-HMR</i>	225	9.6	326	10.0	384	10.6	437	10.0
<b>total % single CO</b>		<b>45.8</b>		<b>43.1</b>		<b>37.5</b>		<b>39.8</b>
<b>Double CO</b>								
<i>HIS4-CEN3; MAT-RAD</i>	127	5.4	95	2.9	47	1.3	118	2.7
<i>HIS4-CEN3; RAD18-HMR</i>	83	3.5	68	2.1	22	0.6	108	2.5
<i>HIS4-CEN3; CEN3-MAT</i>	55	2.3	113	3.5	28	0.8	114	2.6
<i>CEN3-MAT; MAT-RAD18</i>	58	2.5	115	3.5	25	0.7	105	2.4
<i>CEN3-MAT; RAD18-HMR</i>	51	2.2	99	3.0	26	0.7	125	2.9
<i>MAT-RAD18; RAD18-HMR</i>	62	2.6	79	2.4	52	1.4	77	1.8
<i>HIS4-CEN3; MAT-RAD18</i>	12	0.5	4	0.1	1	0.0	0	0.0
<b>total % double CO</b>		<b>19.1</b>		<b>17.6</b>		<b>5.5</b>		<b>14.8</b>
<b>Triple CO</b>								
<i>HIS4-CEN3-MAT-RAD18</i>	34	1.5	23	0.7	3	0.1	25	0.6
<i>CEN3-MAT-RAD18-HMR</i>	12	0.5	23	0.7	4	0.1	22	0.5
<i>HIS4-CEN3-MAT; RAD18-HMR</i>	17	0.7	24	0.7	7	0.2	28	0.6
<i>HIS4-CEN3; MAT-RAD18-HMR</i>	24	1.0	36	1.1	3	0.1	28	0.6
<b>total % triple CO</b>		<b>3.7</b>		<b>3.3</b>		<b>0.5</b>		<b>2.3</b>
<b>Quadruple CO</b>								
<i>HIS4-CEN3-MAT-RAD18- HMR</i>	3	<b>0.1</b>	8	<b>0.2</b>	2	<b>0.1</b>	<b>6</b>	<b>0.1</b>