

SUPPLEMENTAL DATA

Excision and repair of $P\{w^a\}$ was used in multiple experiments of each genotype to test for defects in SDSA (Figure 3). In the first experiment, excision rates of wild type and *mei-41* were similar (compare wild-type experiment 1 and *mei-41* experiment 1 in Supplemental Table 1). In subsequent repetitions of these experiments, the excision rate increased in wild-type, *grp*, *lok*, and *grp lok* double mutants. In contrast, an increased rate of excision was not observed for the chromosome used for *mei-41* experiments (see *mei-41* experiments 2 and 3). Although the overall excision rates changed from earlier experiments, the ratio of the repair events (% red vs. % yellow) did not change. Consequently, we presented the data in Figure 3 as the average percentage of SDSA events (red eyes) out of all informative repair events (red and yellow eyes); we also excluded the uninformative apricot-eye class (see text). The values of all three classes of individual experiments used to calculate the data in Figure 3 are shown in Supplemental Table 1.

SUPPLEMENTAL TABLE 1. Eye-color of progeny representing germline repair events in checkpoint-defective mutants

Genotype:	wild type				<i>mei-41</i>			<i>lok</i>		<i>grp</i>		<i>grp lok</i>		
Experiment:	1	2	3	4	1	2	3	1	2	1	2	1	2	3
apricot	2366	3311	2661	2075	2640	2224	1402	2402	1709	2234	1834	3017	2242	1360
red	97	169	172	114	41	19	10	85	77	111	110	123	128	63
yellow	108	206	215	135	122	82	35	131	117	117	161	257	290	103
total <i>n</i>	2517	3686	3048	2324	2803	2325	1465	2618	1903	2461	2105	3397	2660	1526

SUPPLEMENTAL TABLE 2.

Frequency of complete SDSA clones in adult eyes

Genotype	n^a	Eyes with red clones (%)^b	Red Clones / Eye^{c, ***}
wild-type	326	98.8 [*]	3.86 (^{+/-} 1.5)
<i>mei-41</i>	266	9.0 ^{**}	0.11 (^{+/-} 0.37)
<i>mei-41; CycA/+</i>	236	22.9 [*]	0.36 (^{+/-} 0.67)
<i>mei-41; CycB/+</i>	206	16 [*]	0.18 (^{+/-} 0.45)

^a n is the number of eyes of males of indicated genotype containing $P\{w^a\}$ and transposase (see Materials and Methods).

^b Percentage of eyes with at least one red clone (indicative of SDSA).

^c Average number of red clones/eye. Numbers in parentheses are standard deviation.

*** Values for each genotype were significantly different from each other genotype using unpaired t test with Welch's correction ($p < 0.0001$).