



Genotype Stage 1 spot 2 spot Total sunn Spermatogonia + S1 263 (92.6) 19 (6.7) 282 S2 38 (100) 0 38 WT Spermatogonia + S1 29 (87.9) 4 (12.1) 33 S2 0 15 (100) 15

Figure S2 Arm cohesion is not affected in *sunn* mutants. Single GFP foci were observed in nuclei from DAPI-stained spermatogonial 8-cell cysts (A) and stage S1 meiotic 16-cell cysts (B) from *sunn* ²³⁻⁵⁸³⁹/Df males heterozygous for a second chromosome insertion of a 256-mer lacO array and expressing GFP-Lac I under control of the *hsp83* promoter (VAZQUEZ *et al.* 2002). Nuclei exhibit one or two foci depending on whether sister chromatid arms are together or apart, respectively. Scale bars represent 5uM in (A), 10 uM in (B). In eight cell cysts (A) and S1 16 cell cyst (B), *sunn* mutants mostly display a single GFP-Lac I focus. (C) Quantification of GFP-Lac I foci in *sunn* and WT spermatogonia and S1 and S2 stage spermatocytes.

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