

Table S1 Genetic stocks used in this study

Line	Notes on genotype	Source	Reference
HR stocks			
<i>y w; FLP-I-Scel/TM6</i>	$y^1 w^*$; $P\{ry^{+17.2}=70FLP\}11 P\{v^{+11.8}=70I - Scel\}2B noc^{ScO}/CyO, S^2$	BSC 6930	Staber <i>et al.</i> 2011
<i>y w ey-FLP</i>	$y^{02} w^{1118} P\{ry[+t7.2]=ey-FLP.N\}2$	BSC 5580	Staber <i>et al.</i> 2011
<i>y w Cre; noc^{ScO}/CyO</i>	$y^1 w^{67c23} P\{y^{+mbDint2}=Crey\}1b;$ noc^{ScO}/CyO	BSC 766	Staber <i>et al.</i> 2011
w^1		BSC 145	Staber <i>et al.</i> 2011
w^{1118}		BSC 3605	Staber <i>et al.</i> 2011
Balancer Stocks			
<i>w; TM3 sb /TM6 tb</i>		B. Ganetzky	
<i>+</i> ; $CyO^{It\ ap\ pr\ cn}/ScO$		B. Ganetzky	
<i>w</i> ; $CyO^{cn\ bw\ Roi}/ScO$		B. Ganetzky	
SD Stocks			
<i>SD-5</i>	Strong distortion phenotype and contains <i>Sd</i> , <i>E(SD)</i> , <i>Rspⁱ</i> , <i>M(SD)</i> and <i>St(SD)</i> as well as two paracentric inversions on 2R.	B. Ganetzky	<i>Sandler and Hiraizumi 1959;</i> <i>Sandler et al. 1959</i>
<i>SD-5*</i>	Uncharacterized derivative of <i>SD-5*</i> which exhibits an intermediate level of distortion	B. Ganetzky	
<i>SD-72</i>	Strong distorter with a both pericentric and paracentric inversions	B. Ganetzky	Sandler and Hiraizumi 1959)
<i>SD-Mad It cn</i>	Derived from the original <i>SD-Mad</i> by recombination with chromosomes carrying the recessive markers <i>cn</i> , <i>It</i>	B. Ganetzky	R.G. Temin 1979
<i>SD-Mad bw³</i>	Derived from the original <i>SD-Mad</i> by recombination with chromosomes carrying the recessive markers <i>bw³</i>	B. Ganetzky	R.G. Temin 1979
<i>SD-Roma</i>	Inversion free moderately distorting SD chromosome isolated in Italy	B. Ganetzky	Nicoletti and Trippa 1967)
<i>SD-Los Arrenos</i>	Weak distorter	B. Ganetzky	
<i>Rsp^S cn bw</i>	$[Sd^+, E(SD)^+, Rsp^S]$ standard Rsp sensitive chromosome	B. Ganetzky	Lyttle 1991
<i>Rspⁱ¹⁶ cn bw</i>	$[Sd^+ E(SD)^+ Rsp^i]$ Radiation-induced derivative of the Rsp ^s cn bw chromosome where the Rsp locus has	B. Ganetzky	Ganetzky 1977

	been completely deleted		
<i>Rsp^{SS} It pk cn</i>	[<i>Sd^r E(SD)^r Rsp^{SS}</i>] the canonical RspSS chromosome	B. Ganetzky	Lyttle 1991
RNAi Mutants			
<i>aub^{CC42} cn bw/CyO</i>	EMS; Strong allele	T. Schüpbach	Schupbach and Wieschaus 1991
<i>aub^{HN2} cn bw/CyO</i>	EMS; Strong allele	T. Schüpbach	Schupbach and Wieschaus 1991
<i>aub^{HM23} cn bw/CyO</i>	EMS; Strong allele	T. Schüpbach	Schupbach and Wieschaus 1991
<i>aub^{AHN56} cn bw/CyO</i>	EMS: Strong allele, has secondary mutation	T. Schüpbach	Schupbach and Wieschaus 1991
<i>aub^{AHE13} cn bw/CyO</i>	EMS: Strong allele, has secondary mutation	T. Schüpbach	Schupbach and Wieschaus 1991
<i>zuc^{HM27} cn bw/CyO</i>	EMS: Strong allele	T. Schüpbach	Schupbach and Wieschaus 1991
<i>zuc^{SG63,rec2} pr c px sp/CyO</i>	EMS: homozygotes poorly viable	T. Schüpbach	Schupbach and Wieschaus 1991
<i>squ^{PP32} cn bw/CyO</i>	EMS; Strong allele	T. Schüpbach	Schupbach and Wieschaus 1991
<i>squ^{HE47} cn bw/CyO</i>	EMS; Strong allele	T. Schüpbach	Schupbach and Wieschaus 1991
<i>cuff^{WM25} cn bw/CyO</i>	EMS; Strong allele	T. Schüpbach	Schupbach and Wieschaus 1991
<i>cuff^{Q037} cn bw/CyO</i>	EMS; Strong allele	T. Schüpbach	Schupbach and Wieschaus 1991
<i>w¹; aub^{N11}/CyO</i>	110bp deletion	P. Macdonald	Harris and Macdonald 2001
<i>piwi⁰⁶⁸⁴³ cn /CyO</i>	P{PZ} in first exon	BSC 12225	Cox et al 1998
nosGAL4, Aub-GFP	UAS-Aubergine-GFP recombined on to the same chromosome as nos-GAL4 VP16	P. Macdonald	Harris and Macdonald 2001