

**Additional file 4:** Misexpression experiment. Comparison of the number of ectopic bristles in flies carrying the *UAS-ase/ASH2* ORF only and ORF+SOPE constructs. Three independent lines were generated for each UAS construct and four different Gal4 lines were used that activated the constructs in the expression domains of *toll-8*, *patched*, *scabrous* and *achaete*. The small numbers give the standard error of the mean. See Fig 5 for additional details.

	<i>Dm</i> <i>asense</i> ORF +SOPE	<i>Dm asense</i> ORF	<i>Tc</i> <i>asense</i> ORF +SOPE	<i>Tc</i> <i>asense</i> ORF	<i>Cs</i> <i>CsASH2</i> ORF +SOPE	<i>Cs</i> <i>CsASH2</i> ORF
ectopic bristles	7.34 0.35	10.91 0.33	4.35 0.39	5.97 0.59	3.36 0.29	14.34 0.58