Supplementary Figure 1. A map showing the locations of the fragments used for the reporter assays is shown at the top. Below, a VISTA plot (http://genome.lbl.gov/vista) of the same genomic region upstream of svb enhancer A, between genes Ptp4E and CG12860. A VISTA plot of the region from the svb gene to the gene CG12680 was published previously (McGregor et al. 2007. Nature. 448: 587-591). The alignment compares D. melanogaster to D. pseudoobscura, to D. ananassae, and to D. virilis, revealing high conservation peaks throughout almost the entire region. The exception is a roo transposable element present only in the D. melanogaster genome (in magenta). The red rectangles indicate the positions of the newly-discovered enhancers.
Supplementary Figure 2. Lateral views of reporter gene expression driven by *D. melano-\textit{gaster} Z* and *DG2* at embryonic stages 14 and 15. The β-galactosidase reporter driven by *Z* is targeted to the cytoplasm, whereas the β-galactosidase driven by *DG2* has a nuclear localization signal. Both reporters were detected with the same anti-β-galactosidase antibody.
Supplementary Figure 3. A Z::svb transgene rescues the temperature-dependent loss of trichomes in Df(X)svb108 larvae. The dorsal region (above) and lateral patch (below) of first-instar larvae with genotypes C108 and Df(X)svb108; Z::svb reared at three different temperatures. In Df(X)svb108; Z::svb larvae, the dorsal region shows little or no rescue at extreme temperatures, while the lateral patch shows complete rescue (see also Fig. 3). The red arrows highlight bristles on C108 larvae that are lost in both Df(X)svb108 and, as shown here, Df(X)svb108; Z::svb larvae.