



**Figure S6** Yan<sup>V105R</sup> has a reduced ability to repress endogenous *eve* expression. A) Endogenous *eve* expression in mesodermal clusters in either *yan*<sup>-/-</sup>; Yan<sup>V105R</sup> or *yan*<sup>E833/ER433</sup>; Yan<sup>V105R</sup> embryos. B) Quantification of number of Eve-positive cells in the mesodermal clusters in Stage 11 *yan*<sup>E833/ER433</sup>; Yan<sup>WT</sup> or *yan*<sup>E833/ER433</sup>; Yan<sup>V105R</sup> embryos (N=40 embryos; p<0.0001, students t-test) C) Quantification of *eve* expression in the mesodermal clusters reveals an increase in the mean intensity (N=10 embryos; p<0.0001, students t-test) and variation (p<0.0001, Mann Whitney U) in *yan*<sup>E833/ER433</sup>; Yan<sup>V105R</sup> embryos relative to *yan*<sup>E833/ER433</sup>; Yan<sup>WT</sup>.