



Figure S1. DI enrichment at the 3TAG enhancer increases across the D/V axis. Related to Figure 4.

(A-B) Individual enrichment curves plotted together for each genotype, as indicated. Average enrichment profiles of all curves are plotted in black. Percentages show the fraction of curves that have a y-intercept greater than 1, indicating the proportion of nuclei that show net enrichment. (C) Individual enrichment curves from each bin plotted in the same manner; 3TAG on top (blue), 0TAG on bottom (red). Note that the y-intercept of the 3TAG foci increases as the nuclear concentration of DI falls, which explains how we can observe uniform transcriptional output across the gradient in 3TAG, i.e., DI is more enriched in regions where there is less nuclear DI, thereby maintaining uniform output. However, the median value of 0TAG foci stays relatively flat at 1.0 across the gradient as expected since there is no enrichment without Zld. Note also that the percentages of enriched lines, which are the lines with a y-intercept greater than 1 (indicated in the upper right corner of each panel) do not appreciably change over the DI gradient for either genotype, therefore the effect of enrichment is restricted to the amplitude of enrichment rather than the percentage of cells that are enriched. (D) Boxplots showing the distribution of y-intercepts from each spatial bin.