



Figure 5 - figure supplement 1: Individual *Kr* enhancers display sub-additive behavior. To assess the way input from two enhancers is integrated at the *Kr* promoter, we compared the experimentally observed mRNA production of duplicated enhancers to that predicted from additive behavior of the single enhancers. **A.** The duplicated distal enhancer displays sub-additive behavior. The solid line is the experimentally observed total mRNA produced by the duplicated distal enhancer during nc14 as a function of egg length and the dotted line is that expected by doubling the total mRNA produced by the single distal enhancer. **B.** The duplicated proximal enhancer also acts sub-additively. The solid line is the experimentally observed total mRNA produced by the proximal enhancer during nc14 as a function of egg length and the dotted line is that expected by doubling the total mRNA produced by the single proximal enhancer. These results, along with the observation that k_{off} values increased and k_{on} values decreased in our model with the addition of a second enhancer, suggests that the *Kr* enhancers compete with each other for interactions with the promoter. Error bars represent 95% confidence intervals.