Supplementary Information. Aleman et al.

Mad linker phosphorylations control the intensity and range of the BMP-activity gradient in developing Drosophila tissues

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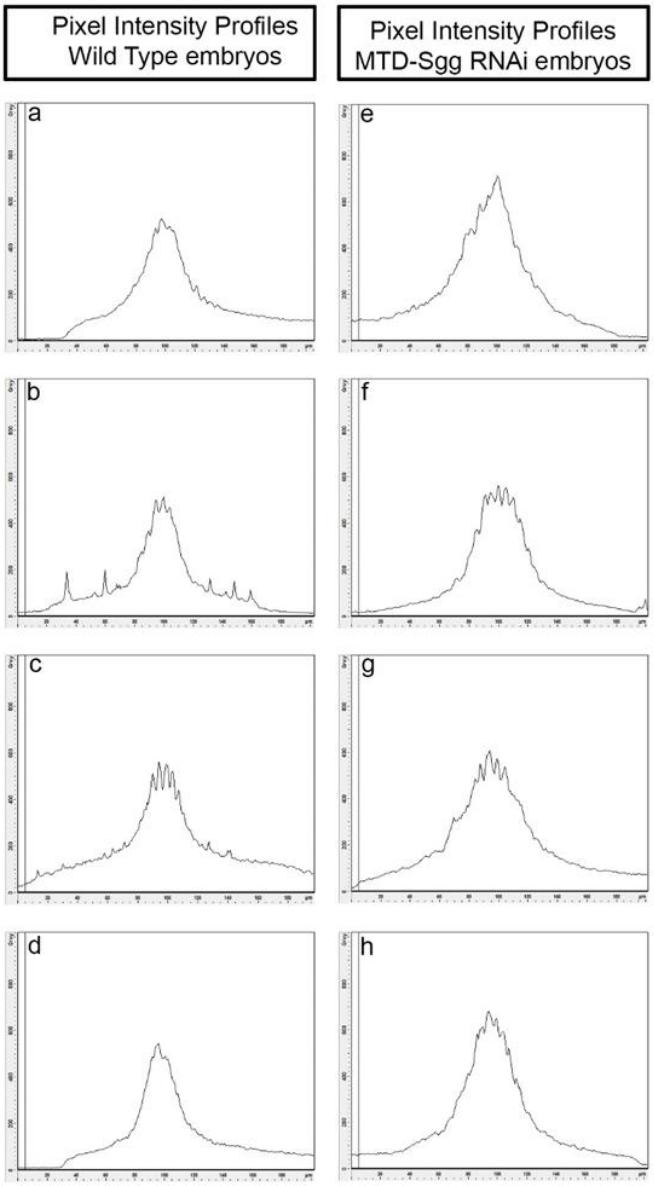
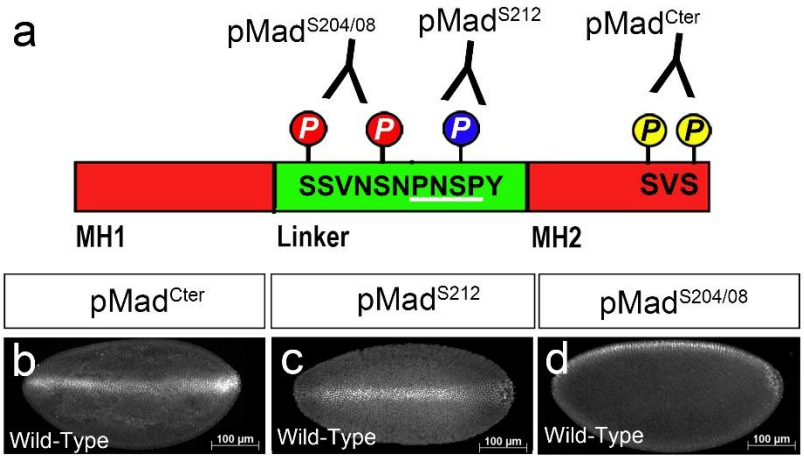
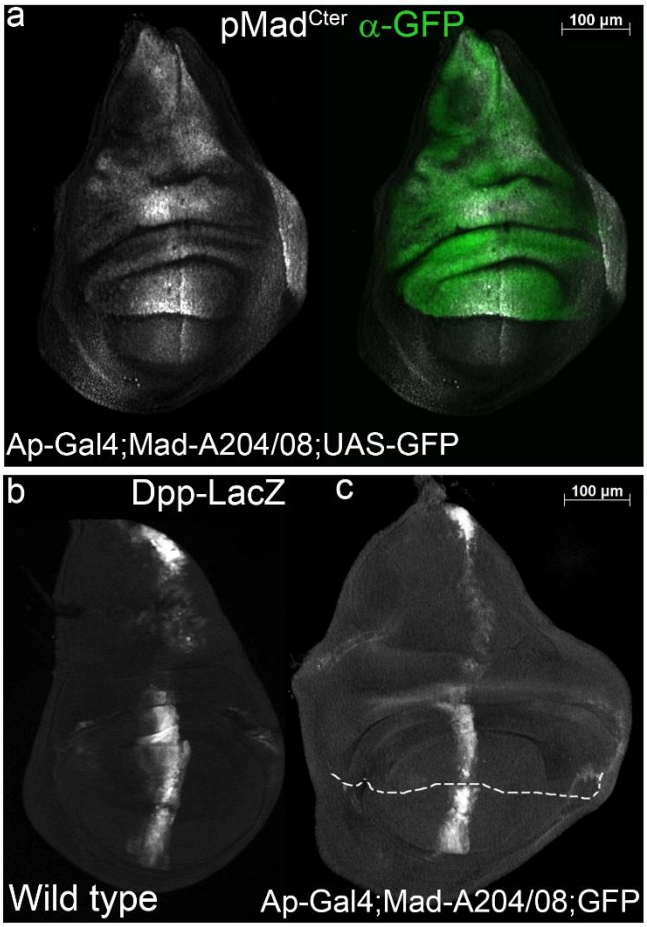


Supplementary Information Fig. S1. (a-d) Fluorescent intensity profiles measured from 4 separate wild type embryos. Profiles were taken from a 30µm slice perpendicular to the dorsal stripe using Zeiss Apotome software. Intensity levels are arbitrary units on the x-axis and stripe width measured in µm on the y-axis. (e-h) Fluorescent intensity profiles measured from 4 separate MTD-Sgg RNAi embryos showing an increase in fluorescent intensity levels and overall width of the dorsal stripe.



Supplementary Information Fig. S2. Mad linker phosphorylations mirror the BMP activity gradient in the blastoderm embryo. (a) Schematic representation of BMP activated, ($pMad^{Cter}$) and linker phosphorylated Mad locations ($pMad^{Linker}$, serines 212, 204 and 208). (b to d) $pMad^{Cter}$ and $pMad^{Linker}$ share expression domains along the dorsal midline of the blastoderm embryo (embryos in b and c are dorsal views, d, is a lateral view) n = 20 (b), n = 43 (c), n = 34 (d).



Supplementary Information Fig. S3. Mad linker mutant stabilizes the BMP activity gradient in the dorsal wing compartment. (a) Mad-A204/08 overexpression in the dorsal wing compartment (marked using GFP) using Apterous-Gal4 results in increased C-terminally phosphorylated Mad levels compared to wild type ventral wing compartment, n = 23. (b) Wild type Dpp-LacZ expression is expressed in a narrow stripe along the A/P compartment boundary, n = 10. (c) Mad-A204/08 driven in the dorsal compartment (using Apterous-Gal4) results in a mild reduction in Dpp-LacZ expression, n = 15.