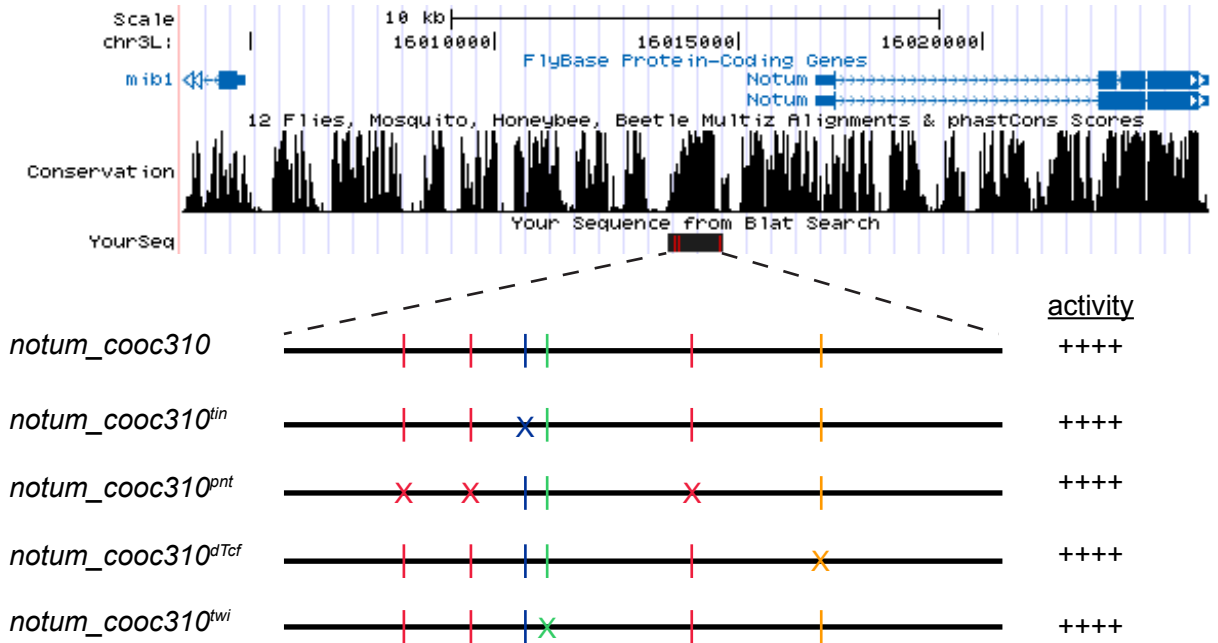


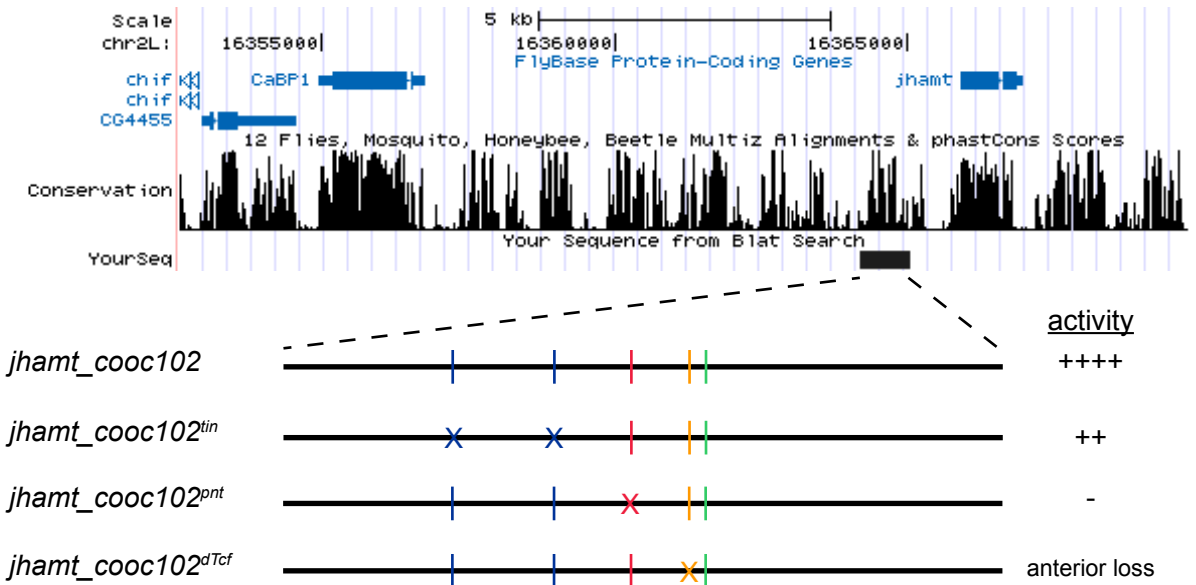
Supplementary Figure S1: CRM mutagenesis. Panels A-C provide a graphical summary of the CRMs, their binding sites, and the results of mutagenesis. Browser snapshots from the UCSC Genome Browser depict flanking genes and PhastCons scores for each CRM. CRMs are indicated by the heavy bar marked as “your sequence from Blat search.” The expanded view below each browser snapshot shows the TFBSs, color coded as follows: ETS (Pnt), red; Tin, blue; Twi, green; dTcf, orange. “X’s” represent mutated sites.

Panels D-F provide the nucleotide sequences of the CRMs. The predicted binding sites are underlined. Site-specific mutations are depicted below the mutated sequence, color-coded as in A-C. For each mutated CRM, all of the indicated TFBSs for a given TF were mutated in the same construct.

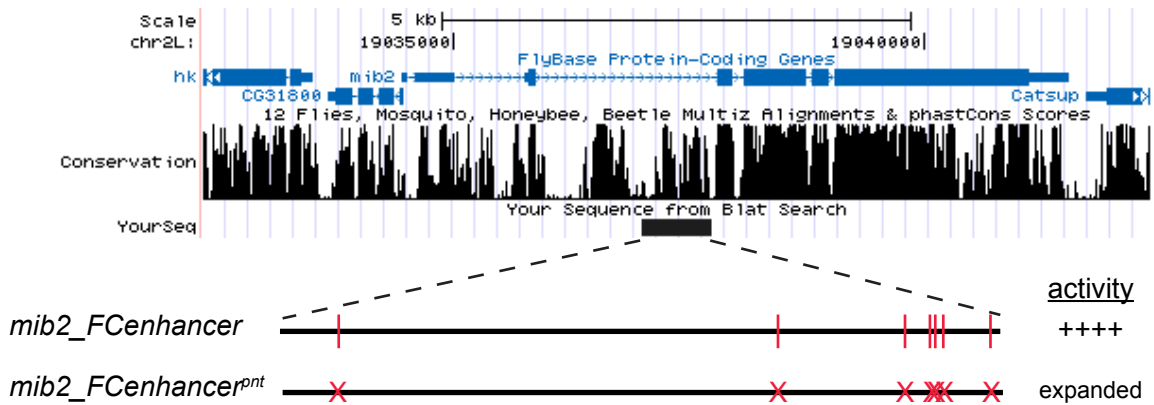
A



B



C



ETS: RED
TIN: BLUE
TWI: GREEN
TCF: ORANGE

D: notum_cooc310: 3L:16013542..16014711

TTCAGTAAAATCCTTTAAAATTTCCATAAAGCACCTGGTGACCATGCAACATCACTGACCTCCGTCAATCGAGAGC
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CGACTGGAGATTGGATGCTGGATTCTGGATGCTGGAGCCTCGGCGCACCTGTTGTGTTTTCCACAGCGAGCGGACG
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GTCGGTCGGCGCTTTGAAGATTATGCCCAAAGTTATGAGGTTGCGGTAGAGGCTCTGTATTCCAGGTGCTCCGTTT
TCCAGGTGATCGGATCGGCCTATGCGAAATTATATAGCTCAGCAGCGTTGGTAGCGATGTAGCAGCTTTAACTACG
CAGTGCCTGTGCTTCCCTCGCCGTCCTCTTTCTCGTCATCGTCATCGTCATCATCTCATCATCATCATCATCAT
ATCATCATCATCACCGTCATCATCTTCCGCTGGGGCATCGCATCAGCTGGCGCTGCTGCTTGTGCTTGTGCTTGTG
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AAAAGTAGCACACCTTGCTGGGGTTGGAA 1169

E: jhamt_cooc102: 2L:16364204..16365055

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TGAG
CAATCGACAGCTCTCGGTAATTTTCGAGCCGAATAACCCTTTTGCTGACTTTTGCCTGTTTTACCAAAAAGAGTCTG
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CTCA
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CCTA
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GGATCGTTTTTTGGGC 851

F: mib2_FCenhancer: 2L:19036995..19037741

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CG
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CG
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TAGTCACGGCGCGTTGTTTATGAGGGGAAGTGTGCGCTCTGCATATGTCTGATATCCACCGGATGTGGATGTGGG
CG CG CG CG
GATGGTGATGCCGATGTACACACAATGCAGCCCTAGGAGCATCCTTGTGGCAGCTCTATAGC 746
CG

Underlined sites correspond to sites predicted by Philippakis et al. (2006).