SUPPORTING METHODS

RNA extraction and RT PCR: We extracted RNA from ~20 whole experimental and control flies using TRIzol® reagent (Invitrogen). Isolated RNA was treated with RQ1 DNase (Promega) and cDNA was synthesized with SMARTScribe Reverse Transcriptase (Clontech). PCR to amplify cDNA was run for 30 cycles using primers for the specified gene. Primers used: PEBme 5' GGA ATT TTC GGA CAA CAT GG, PEBme 3' CCT TTT ACC GAT GGC ACT GT; CG8626 5' ATG CCA AAA GTC GCA AGT TC, CG8626 3' TGA TGG GCC ACC CTA ATA AA; CG15616 5' ATC GTC CCG ACC GTA TAT GA, CG15616 3' TCG TCC AAG CAA CCT AAT CG. Actin5C primers (5': AGC GCG GTT ACT CTT TCA CCA C, 3' GTG GCC ATC TCC TGC TCA AAG T) were used in parallel to serve as a loading control.

Video imaging: We recorded mating of experimental and control males with females in semi-microvolume cuvettes (Bio-Rad) using a Canon MP-E 65mm f/2.8 1-5x macro lens (ratio 2:1) mounted on a Canon 5D mark III, stabilized on a tripod (Induro CT213 Carbon 8x) and driven by a 4 way macro focus rail (Neewer Pro). Video editing was performed with Adobe Premiere Pro.

Mating duration: Experimental and control males were individually mated to females in glass vials containing moistened filter paper. The times of mating initiation and termination were recorded. Mating duration was analyzed using t-tests in JMP 9.02.