



S8 Fig. CsChrimson.mCherry-positive HC PNs in a *HC>FLIPSOTa* fly avoiding red light with the ablation of the right arista. Three PNs expressed CsChrimson.mCherry (mALTs, tALTs, and IALT) in the left hemisphere. The PI value of the single-fly two-choice thermotactic assay under ambient light condition was 1.00, and the PI value of the single-fly optogenetic assay under red light condition was 0.67. Green: GFP antibody to show all postsynaptic neurons of HCs in the left hemisphere, magenta: mCherry antibody to indicate CsChrimson.mCherry-positive postsynaptic neurons of HCs; cyan arrow: CsChrimson.mCherry-positive PN, orange arrowhead: CsChrimson.mCherry-negative PN, cyan double arrow: CsChrimson.mCherry-weak PN. Scale bar: 100  $\mu$ m.