

Figure 1-figure supplement 2

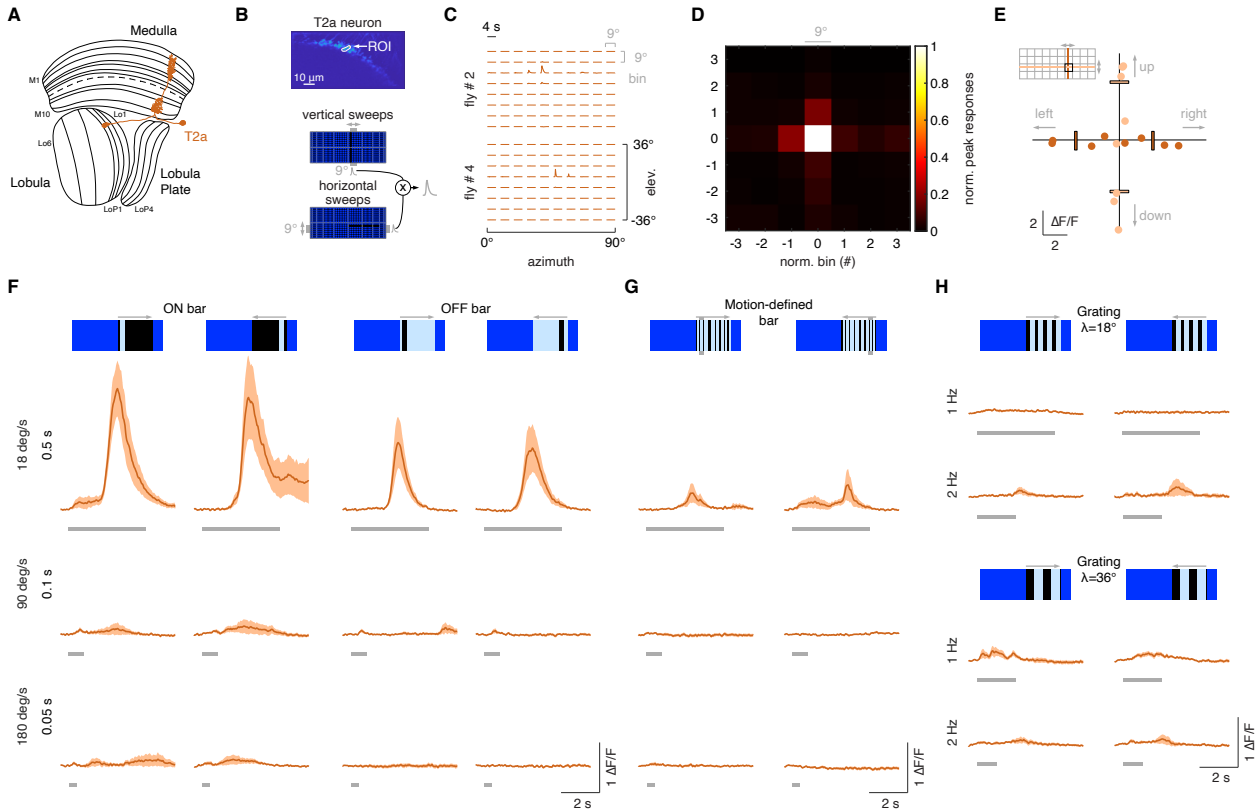


Figure 1-figure supplement 2. T2a neurons do not show a broad temporal sensitivity. **(A)** Left: schematic representation of a T2a neuron (orange) within the optic lobe. **(B)** Top: ROI drawn around the presynaptic terminal in the lobula of a single T2a neuron expressing GCaMP6f. Image representing the mean fluorescence from the two-photon imaging over the entire experiment in a representative fly. Bottom: representation of the procedure used to probe the RF of a single T2a (as done in **Figure 1E**). **(C)** Matrix of the responses obtained by multiplying horizontal and vertical sweeps in two representative flies. **(D)** Mean of the normalized peak responses by spatial location in individual T2a neurons ($n = 4$ flies, 1 repetition per fly). Bin = 0 represents the center of the RF. **(E)** Directional calcium peak responses to a 2.25° dark bar moving (18° s⁻¹) in the four cardinal directions of individual flies. Colors depict motion along different axes (horizontal: deep orange; vertical: light orange). **(F)** Average responses (mean \pm s.e.m.) to moving ON and OFF solid bars (9° x 72°, width x height) at three different speeds (times on the left indicate how long it takes from the leading to the trailing edges) in two different directions (front-to-back and back-to-front). Visual stimuli are depicted at the top. Light gray horizontal bars at the bottom indicate stimulus presentation ($n = 9$ flies, 3 repetitions per fly). **(G)** Average responses (mean \pm s.e.m.) to motion-defined bars moving in two different directions (front-to-back and back-to-front) at three different speeds. **(H)** Top: T2a responses to a grating of $\lambda=18^\circ$ moving front-to-back and back-to-front at two different temporal frequencies. Bottom: T2a responses to a grating of $\lambda=36^\circ$ moving front-to-back and back-to-front at two different temporal frequencies.