Supplementary Figure 5. Attenuation of ORN inputs by high-frequency sniffing imaged with a low-affinity calcium dye.

a. Averaged, normalized raw calcium signal traces during high frequency sniffing (>4 Hz) trials imaged with rhod dextran. Traces are the average of 26 responses (1 response/glomerulus/odorant) and are aligned and normalized as described for Fig 5a (see Main Text). As with the higher-affinity OGB data (see Fig. 5a), the tonic component of the calcium signal is attenuated during high-frequency sniffing.

b. Sniff-evoked (phasic) calcium signals (filled circles) evoked by each sniff during high-frequency sniffing trials (>4 Hz). Data are binned and normalized as described for Fig 5b. Data are compiled from 26 trials (same trials as in (a)). Points indicate mean response amplitude within each bin. Error bars are omitted for clarity; the standard deviation for each time-bin during odorant presentation was 0.29 ± 0.07 ms. Solid black line shows mean inter-sniff interval (ISI) for each trial, placed into the same time-bins as the response amplitudes (mean ± s.d., 106 ± 63 ms).