Supplementary Figure 2. Comparison of sniff measurements obtained via intranasal pressure versus flow.

a. Intranasal pressure transients (blue) and flow measurements (thermocouple output, red) measured simultaneously. The signals were bandpass-filtered (0.5-15 Hz) and z-normalized.

b. The crosscorrelation between the two filtered signals shows that the thermocouple signal lagged that of the pressure sensor by 26 ms and correlated with the pressure signal at that lag with r = 0.872.

c. Correlation between instantaneous sniff frequency measured by these two methods, as assessed by detecting local maxima just after onset times at z > 0.5.

d. Correlation between sniff amplitudes measured by the two methods. Data are from all sniffs occurring at < 3 Hz. The pressure sensor amplitude (the maximum z-value during each sniff) correlated only moderately with the thermocouple peak-peak inhalation-phase amplitude (r = 0.559).