



Fig. S1. Or7a Supplementary information. A) Larval preference indices of Or7a-RNAi knock-down animals and selected control genotypes to lower concentrations of E(2)-hexenal. (N = 4-10) **B)** Example electrophysiological responses of the ab4B neuron to geosmin in control and Or7a mutants.

Table S1. Statistical analysis related to Fig. 2C

		Wild-type	Or7a-3	Or7a-7	Or7a-1
E(2)-hexenal 10 ⁻⁴	Or7a-3	0.036473*			
	Or7a-7	0.000361***	0.047842*		
	Or7a-1	4.38E-07****	2.75E-06****	3.18E-07****	
Benzaldehyde 10 ⁻²	Or7a-10	2.63E-05****	7.2E-05****	6.89E-06****	0.135852 ^{n.s.}
	Or7a-3	0.012388*			
	Or7a-7	0.000695***	0.710639 ^{n.s.}		
	Or7a-1	4.1E-09****	1.21E-05****	1.25E-07****	
	Or7a-10	1.26E-06****	0.000338***	1.19E-05****	0.419795 ^{n.s.}

Student's *t*-test, 2-tailed.

Table S2. Statistical analysis related to Fig. 2D

		Or7a-3	Or7a-7	Or7a-1
E(2)-hexenal 10 ⁻¹	Or7a-7	0.2713 ^{n.s.}		
	Or7a-1	0.0058**	0.0588 ^{n.s.}	
	Or7a-10	0.0009***	0.0173*	0.7949 ^{n.s.}
E(2)-hexenal 10 ⁻²	Or7a-7	0.0022**		
	Or7a-1	0.0076**	0.1556 ^{n.s.}	
	Or7a-10	0.0091**	0.3843 ^{n.s.}	0.2501 ^{n.s.}
E(2)-hexenal 10 ⁻³	Or7a-7	0.1096 ^{n.s.}		
	Or7a-1	0.0004***	0.0014**	
	Or7a-10	0.0232*	0.215 ^{n.s.}	0.0232*
E(2)-hexenal 10 ⁻⁴	Or7a-7	0.7949 ^{n.s.}		
	Or7a-1	0.0008***	0.0004***	
	Or7a-10	0.0091**	0.0028**	0.1868 ^{n.s.}
E(2)-hexenal 10 ⁻⁵	Or7a-7	0.4965 ^{n.s.}		
	Or7a-1	0.1971 ^{n.s.}	0.0751 ^{n.s.}	
	Or7a-10	0.0232*	0.0114*	0.7339 ^{n.s.}

Mann-Whitney *U*-test, 2-tailed.