

Table S1. Quantitation values for pixel counts of Or22a>GFP terminals in normal and mutant genotypes as plotted in Fig. 2G

	Or22a>GFP; Or22a>GFP; 8 days PE	Or22a>GFP; Or83b ⁻ /Or83b ⁻ ; 8 days PE	Or22a>GFP; Or83b ⁻ /Or83b ⁻ UAS Or83b ON at 2 days PE tested at 8 days PE	Or22a>GFP; Or83b ⁻ /Or83b ⁻ UAS Or83b ON at 4 days PE tested at 8 days PE	Or22a>GFP; Or83b ⁻ /Or83b ⁻ UAS Or83b ON at 6 days PE tested at 8 days PE
Pixel count	40231.3±2890.3	17891.2±3031.2	35682.2±2312.1	31570.9±2787.9	15906.9±2901.2

Pixel count values represent the mean±s.e.m., n=5 for each case.

Table S2. Quantitation values for pixel counts on Or22a>GFP neurons in normal and mutant genotypes plotted in Fig. 2G

	Or22a>GFP; 6 days PE	Or22a>GFP; Or83b ⁻ /Or83b ⁻ ; 6 days PE	Or22a>GFP/UAS Eag DN, UAS Sh DN; Or83b ⁻ /Or83b ⁻ ; 6 days PE	Or22a>GFP/UAS Eag DN, UAS Sh; 6 days PE
Pixel count	45114.2±2200.5	22422.8±2111.2	42679.8±2536.5	44789.12±3010.9

Pixel count values represent the mean±s.e.m., n=5 for each case.

Table S3. Quantitation values for pixel counts of Or22a>GFP neurons in normal and mutant genotypes as plotted in Fig. 5D

	Or22a>GFP; 6 days PE	Or22a>GFP; Or83b ⁻ /Or83b ⁻ ; 6 days PE	Or22a>GFP/UAS Sgg DN.A81T; Or83b ⁻ /Or83b ⁻ ; 6 days PE	Or22a>GFP; Or83b ⁻ /Or83b ⁻ fed 10 mM LiCl 6 days PE
Pixel count	45114.2±2200.5	22422.8±2111.2	40281.2±2921.6	37819.1±3100.9

Pixel count values represent the mean±s.e.m., n≥5 for each case.

Table S4. Quantitation values for pixel counts of Or22a>GFP neurons in mutant and rescue genotypes

	Mean±s.e.m.	Bar chart plotted in figure
Or22a>GFP; Or83b ⁻ /Or83b ⁻ at 6 days PE	25892.09±2908.6	–
Or22a>GFP/UAS Dsh; Or83b ⁻ /Or83b ⁻ 6 days PE	35421.2±2309.2	5D
Or22a>GFP/UAS Wg; Or83b ⁻ /Or83b ⁻ 6 days PE	34021.2±2908.8	7F
Or22a>GFP/UAS UBP2; Or83b ⁻ /Or83b ⁻ 6 days PE	37890.9±2907.2	S6I

n≥5 for each case.

Table S5. Quantitation values for Wingless levels within the DM2 glomerulus as plotted in Fig. 7C

	Control (n=5)	5× high K ⁺ (n=6)
Wg	1869.07±62.9	2277.8±72.2

Values represent the mean±s.e.m.

Table S6. Quantitation values for pixel counts of Or22a axons within the selected ROI in Fig. S2 as plotted in Fig. S2F

(A) Or22a>GFP; Or83b ⁺ /Or83b ⁺ at 6 days PE (n=5)	24034.3±2345.7
(B) Or22a>GFP; Or83b ⁻ /Or83b ⁻ at 2 days PE (n=6)	22409.2±3098.2
(C) Or22a>GFP; Or83b ⁻ /Or83b ⁻ at 4 days PE (n=5)	21098.2±2345.4
(D) Or22a>GFP; Or83b ⁻ /Or83b ⁻ at 6 days PE (n=6)	11209.8±2909.8
(E) Or22a>GFP; Or83b ⁻ /Or83b ⁻ at 8 days PE (n=6)	10109.2±2908.9

Values represent the mean±s.e.m.

Table S7. Quantitation values for pixel counts of Or22a>GFP axons for mutant and rescue genotypes as plotted in Fig. S3C

(A) Or22a>GFP>Or83b; Or83b ⁻ /Or83b ⁻ at 4 days PE	44509.2±3409.2
(B) Or22a>GFP; Or83b ⁻ /Or83b ⁻ at 4 days PE	33670.9±2809.8
(A') Or22a>GFP>Or83b; Or83b ⁻ /Or83b ⁻ at 6 days PE	43409.2±3109.8
(B') Or22a>GFP; Or83b ⁻ /Or83b ⁻ at 6 days PE	25621.3±3200.09

Values represent the mean±s.e.m., n≥5 for each case.

Table S8. Quantitation values for Or47b>TNT, with Or47b>IMPTNT-V (control) and Or47b>TNT-G (experimental) for glomerular volume, GFP (as plotted in Fig. S4) and Draper levels (as plotted in Fig. S6)

	VA6 IMPTNT-V	VA6 TNT-G	VA1v IMPTNT-V	VA1v TNT-G	VA1v IMPTNT-V VA6 IMPTNT-V*	VA1v TNT-G VA1v TNT-G*
Glomerular volume (μm ³)	4019±45	4137±49	10978±149	8142±181	2.73±0.06	1.97±0.06
GFP		VA1v IMPTNT-V [†] 2747±17			VA1v TNT-G [†] 2784±15	
Draper		VA1v IMPTNT-V [†] 407.4±31			VA1v TNT-G [†] 788.1±31	

n=5 for C and E, except for Draper where n=7 for C and E.

Values represent the mean±s.e.m. C refers to number of control animals and E refers to number of experimental animals.

*Glomerular volume of VA1v glomerulus normalized to volume of unaffected VA6 glomerulus of the same antennal lobe.

[†]Average intensity per pixel of remaining OSN terminals (judged by GFP staining) in VA1v glomerulus, compared in equivalent ROIs between experimental and control animals.

[‡]Average intensity per pixel of ROI, within VA1v glomerulus (white rectangle in Fig. S6K,M), compared between experimental and control antennal lobes.