**Supplementary Tables**

Supplementary Table S1. Tissues collected for RNA extraction and gene expression assay

|  |  |  |
| --- | --- | --- |
| **Tissue** | **Part dissected from each tissue** | **Number of individuals pooled for one sample** |
| Antennae (pair) | Entire | 1 |
| Labial Palps (pair) | Entire | 5 |
| Proboscis | Entire | 1 |
| Forelegs (pair) | Tarsal claws, tarsi and tibia | 1 |
| Midlegs (pair) | Tarsal claws, tarsi and tibia | 1 |
| Hindlegs (pair) | Tarsal claws, tarsi and tibia | 1 |
| Forewings (pair) | Entire | 1 |
| Hindwings (pair) | Entire | 1 |
| Ovipositors | Only the tip (anal papillae) | 10 |

Supplementary Table S2. NanoString CodeSet probe sequences and accession IDs for coding sequences of target genes (Excel file uploaded)

Supplementary Table S3. Expression pattern (presence/absence) of all receptors in all tissues (Excel file uploaded)

**Supplementary Figures**

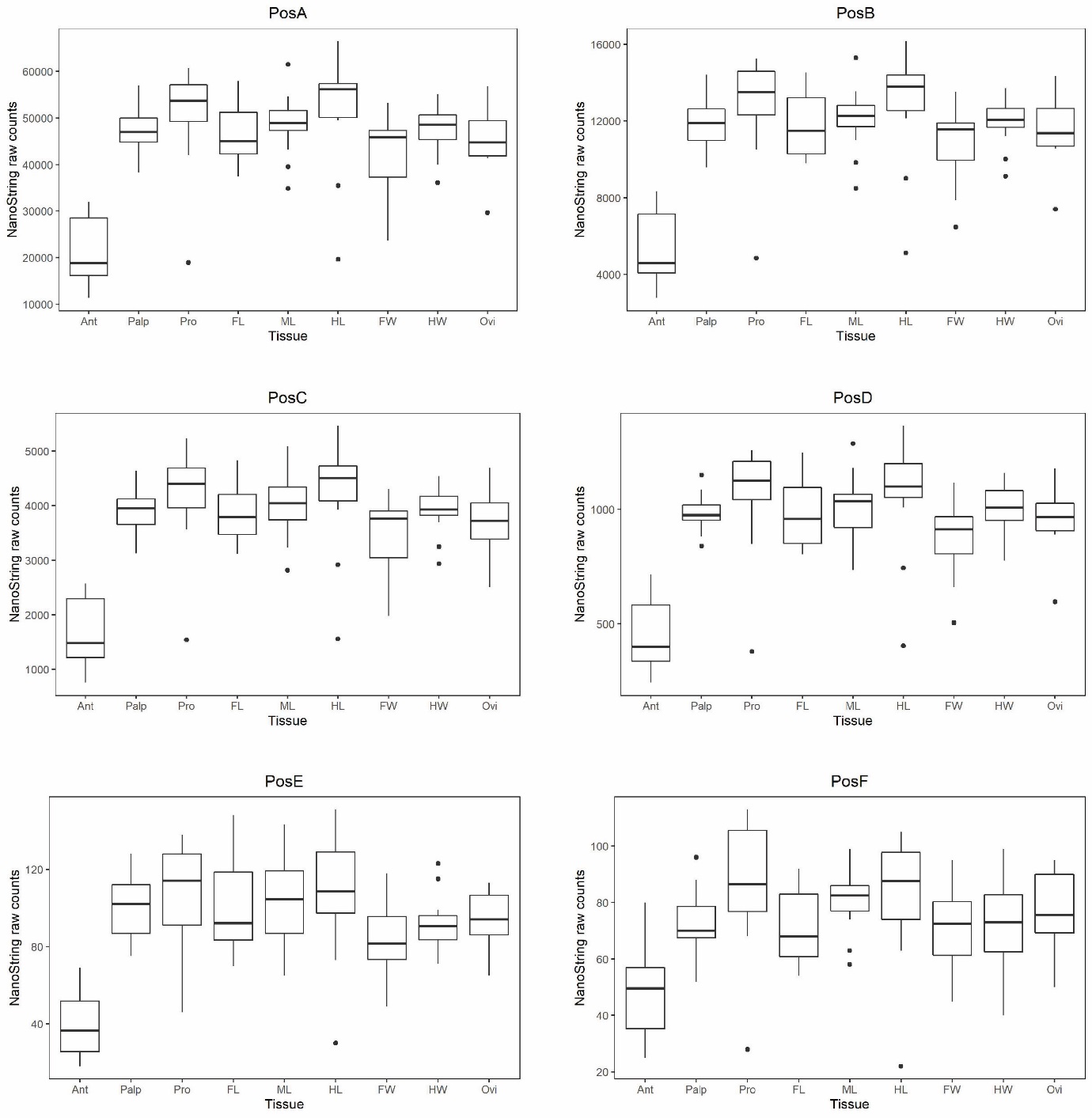


Figure S1: Box plots depicting raw NanoString counts for external positive control probes (PosA to PosF) for nine tissues: *Ant*, antennae, *Palp*, labial palps, *Pro*, proboscis, *FL*, forelegs, *ML*, midlegs, *HL*, hindlegs, *FW*, forewings, *HW*, hindwings, *Ovi*, ovipositor. Antennal samples had lower count values for positive controls in comparison to other tissues. Box plots were made in R.

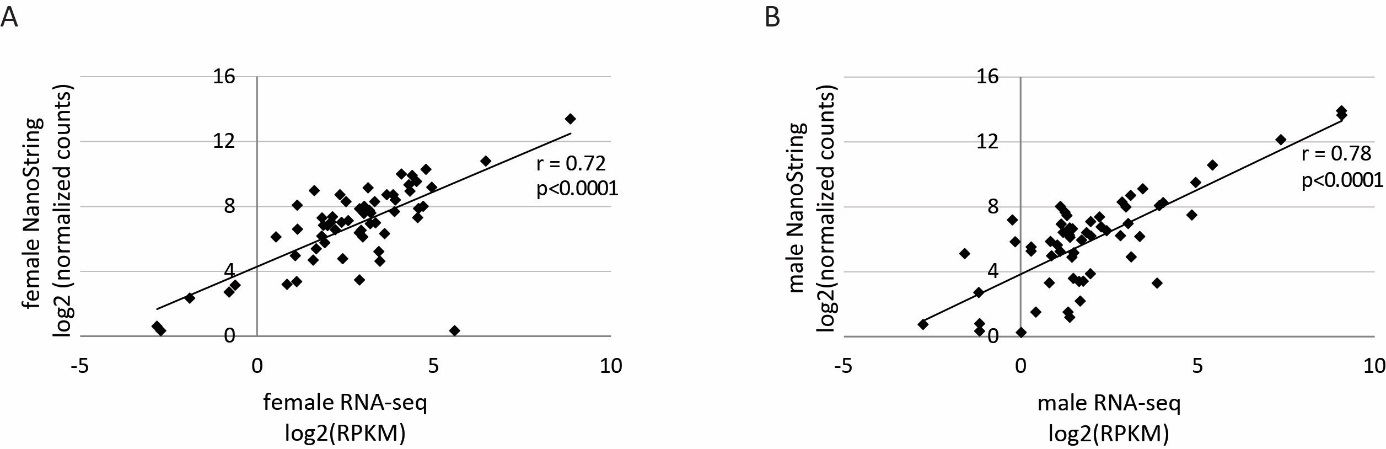


Figure S2: Expression levels of *ORs* in the antennae of virgin moths from RNA-sequencing (Illumina RNA-seq, data from (Koenig et al, 2015)) and NanoString gene expression assay (this study). RNA-seq data is plotted as log2 of RPKM (reads per kilobase per million mapped reads) and NanoString data as log2 of geometric mean of normalized counts. For each graph, we only used datapoints that had non-zero RNA seq expression values. r, Pearson correlation coefficient.

**Reference:**

Koenig, C., Hirsh, A., Bucks, S., Klinner, C., Vogel, H., Shukla, A., Mansfield, J. H., Morton, B., Hansson, B. S. & Grosse-Wilde, E. (2015) A reference gene set for chemosensory receptor genes of Manduca sexta. *Insect Biochem Mol Biol*, 66, 51-63.