

Table S1. Oligonucleotide sequences of primers used in dsRNA construct design. T7 RNA polymerase promoter sequences necessary for efficient RNA transcription are underlined.

Target genes	Forward primer	Reverse primer
<i>Scg-Met</i>	5'- <u>TAATACGACTCACTATAGGGAGA</u> AATGAGCCGTTTGGCAGTTCCA -3'	5'- <u>TAATACGACTCACTATAGGGAGA</u> GGCGGTGCAGCACTCATAGC -3'
<i>Scg-Tai</i>	5'- <u>TAATACGACTCACTATAGGGAGA</u> TCGGAGAATGTGGAGCAGTT-3'	5'- <u>GAAATTAATACGACTCACTATAGGGCC</u> AGGTCACCACTCTCAGAACG-3'
<i>GFP</i>	5'- <u>TAATACGACTCACTATAGGGAGA</u> AAGGTGATGCTACATACGGAA-3'	5'- <u>TAATACGACTCACTATAGGGAGA</u> ATCCCAGCAGCAGTTACAAAC-3'

Abbreviations: *Scg* = *Schistocerca gregaria*, Met = Methoprene-tolerant, Tai = Taiman, GFP = Green Fluorescent Protein.

Table S2. Oligonucleotide sequences of primers used in q-RT-PCR.

Reference genes	Forward primer	Reverse primer
<i>Scg-Act</i>	5'-AATTACCATTTGGTAACGAGCGATT-3'	5'-TGCTTCCATACCCAGGAATGA-3'
<i>Scg-EF1α</i>	5'-GATGCTCCAGGCCACAGAGA-3'	5'-TGCACAGTCGGCCTGTGAT-3'

Target genes	Forward primer	Reverse primer
<i>Scg-Met</i>	5'-GGTGCCTGAAGAGGAAGAAA-3'	5'-ATGGAGGTGATGAAGGAGAAAG-3'
<i>Scg-Tai</i>	5'-GCCAGCTTTGCTGACATGAA-3'	5'-GGAGGATGGCGCACTTGT-3'
<i>Scg-Krh1</i>	5'-CTCCAAGACGTTTCATCCAGAG-3'	5'-TGCTTGGAGCAGGTGAAG-3'
<i>Scg-E93</i>	5'-CGCAAGCAGACATAGAACCC-3'	5'-TGGTCTCAGGAACATCCAC-3'
<i>Scg-NP3</i>	5'-GCGGAATCGGCATGGA-3'	5'-TCACAGAGCAACCGGAACATT-3'
<i>Scg-NP4</i>	5'-TGGCGACTCTCCAGTGCTT-3'	5'-TGACACATTATTCTCTTCTGACA-3'
<i>Scg-IRP</i>	5'-CCGTGGCAACTACAACACCAT-3'	5'-TCCGCGTCCGACACATCT-3'
<i>Scg-JHAMT</i>	5'-CGGAGCAAAGGCAAGCA-3'	5'-CCACTTCACCGCCTGGTTT-3'
<i>Scg-Cyp15A1</i>	5'-AAAGCAACTTCATCATTACAGATG-3'	5'-CAGAGCCAGCCATGAACAAA-3'
<i>Scg-YP</i>	5'-ACGACAACACCACGGAAAAC-3'	5'-TGAAGGTGTCGCTATTGGTG-3'

Abbreviations: *Scg* = *Schistocerca gregaria*, Act = actin, Ef1a = elongation factor 1-alpha, Met = Methoprene-tolerant, Tai = Taiman, Krh1 = Krüppel-homolog 1, NP = neuroparsin, IRP = insulin-related peptide, JHAMT = JH acid O-methyltransferase, Cyp15A1 = methyl farnesoate epoxidase, YP = yellow protein.

Table S3. List of species and accession numbers of protein sequences used in the phylogenetic analyses.

Species	Accession number Met	Accession number Tai
<i>Schistocerca gregaria</i>	NA	NA
<i>Locusta migratoria</i>	AHA42531.1	ANG56297.1
<i>Planococcus kraunhiae</i>	BAU79435.1	BAU79451.1
<i>Blatella germanica</i>	CDO33887.1	CDO33883.1
<i>Drosophila melanogaster</i>	Met: NP_511126.2	ADV36996.1
	GCE: AAF48439.2	
<i>Aedes aegypti</i>	AAW82472.1	AXN70147.1
<i>Tribolium castaneum</i>	NP_001092812.1	/
<i>Helicoverpa armigera</i>	AJW29006.1	
<i>Macrobrachium nipponense</i>	/	QLJ57681.1
<i>Daphnia magna</i>	BAM83855.1	/