

**Table S1.** Primer sequences used for genes investigated by RT-PCR.

<b>Gene name</b>	<b>Gene Symbol</b>	<b>Entrez gene ID</b>	<b>Forward (5'-3')</b>	<b>Reverse (5'-3')</b>	<b>Amplicon Size (pb)</b>
<b>Target Genes</b>					
Acetylcholinesterase	AchE1	HQ260968.1	CCGTTTCGTCCCAGTCATTG	AGTAGTAGCCTTCTTCTGTGTTAG	121
GABA-gated anion channel splice variant 3a6a	RDL	NM_001114292.1	ACTTGGGCGACGTCAACATA	ACGTGAAATCCATCTGGACC	159
GABA-gated ion channel	GRD	NM_001114300.1	GGTCTCCTTCTGGCTGAACC	TGGACCACAGCGAACTGAAT	198
Glutamate-gated chloride channel	GluCl	NM_001114304.1	TGAATGGCACAGATGGTCCC	CCAGACTCGACTGGCTTCAG	194
Histamine-gated chloride channel 2	HisCl2	NM_001109951.1	TGGATGTCCAGTTGTTCCGGT	TGTGGCTGAATAGGCAAGTCAT	176
Hormone receptor in 39-like protein	HR39	XR_043083.1	CGACCGTCGACTGTACAAAA	AGTCGACATGGAACGGAAAC	145
Ultraspiracle nuclear receptor	USP	NM_001114294.2	GATGCAAGCACAGGATGCTA	CCGACTTTATCCCTCGAACA	206
Ecdysone receptor	EcR	NM_001141918.1	GATGGATGGCGAAGATCAGT	ACTTCGCTGGAACATGCTTT	162
Chitin synthase 2	CHS2	AY295879.1	TCCTCCTAGTCATCTACTCG	TTATGCCTCCACGTCTGACC	2289
Cytochrome P450 6BQ8	CYP6B Q8	XM_970474.1	CTATCCCCAACACTTCCATTC	CTGCGGTCAGTCCAACCTTTAC	237
Glutathione S-Transferase	GST	XM_964053.1	ATTCGATTGCCCGATATTTG	CGTTGAAGGTGTCCACAATG	96
Cu/Zn-Superoxide Dismutase	SOD	XM_963191.2	CCATGGAAAGGATCATGGAG	GGCTTCGATATTCCCCAAAT	70
<b>Housekeeping genes</b>					
Ribosomal protein Rp49	Rp49	XM_964471.2	TGGCAAACCTCAAACGCAACT	AGCGCCTACGAACCCTGTT	62
Ribosomal protein RpS18	RpS18	XM_968539.2	CGAAGAGGTCGAGAAAATCG	CGTGGTCTTGGTGTGTTGAC	235

**Table S2.** Compounds identified by GC/MS in *T. castaneum* unexposed or exposed to nap balls (naphthalin).

Peak	Compound	Retention time (min)	Area (%)	
			Unexposed	Exposed
1	1,3-bis(3-phenoxyphenoxy)benzene	1.50	<b>4.95</b>	<b>25.75</b>
2	14-Methylpentadecanoic acid	29.00	19.68	20.26
3	9,12-octadecadienoic acid methyl ester	32.04	<b>58.86</b>	<b>30.31</b>
4	Unidentified	36.09	0.79	9.45
5	1-Heptadecanamine	38.22	15.58	14.12
	Others	---	0.14	0.11

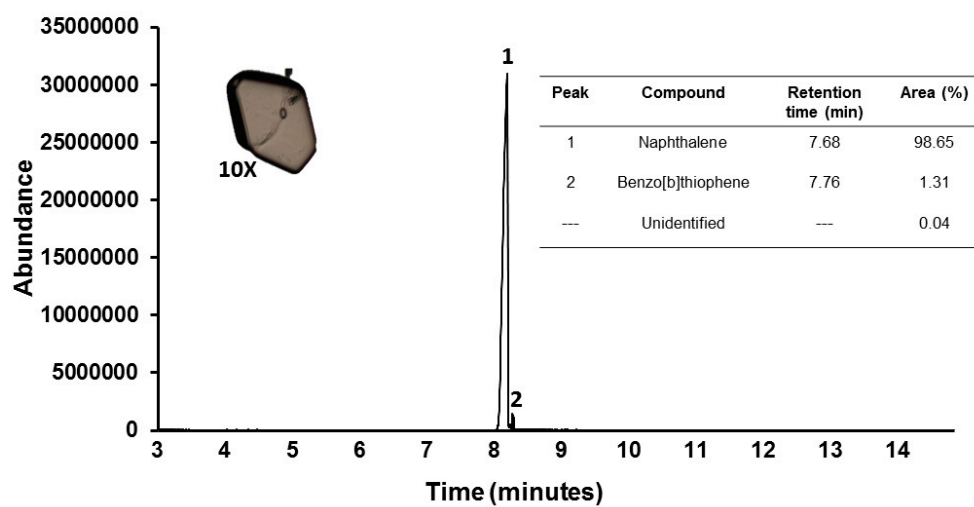


Figure S1. Typical GC/MS chromatogram of nap balls (naphthalin).