

**Additional file 3.** Sequences of primers used to amplify alternate splice variants of *T. castaneum* cys-loop LGIC subunits. Forward primers are on the top of each pair and reverse primers are on the bottom. All primers are shown 5' to 3'.

Subunit Variant	1 <sup>st</sup> PCR reaction	2 <sup>nd</sup> PCR reaction
Tcas $\alpha$ 6 3a8a	tggcgctgctggccac + gcagttgaaataggtccc	gaaaagaatcagattctcacg + gaactgcatcggacgtgg
Tcas $\alpha$ 6 3a8b	tggcgctgctggccac + gcagttgaaataggtccc	gaaaagaatcagattctcacg + aaggaatggcgtcagatac
Tcas $\alpha$ 6 3a8c	tggcgctgctggccac + gcagttgaaataggtccc	gaaaagaatcagattctcacg + gacgtctgggttatcacg
Tcas $\alpha$ 6 3b8a	tggcgctgctggccac + gcagttgaaataggtccc	ggacgagaagaatcaactc + gaactgcatcggacgtgg
Tcas $\alpha$ 6 3b8b	tggcgctgctggccac + gcagttgaaataggtccc	ggacgagaagaatcaactc + aaggaatggcgtcagatac
Tcas $\alpha$ 6 3b8c	tggcgctgctggccac + gcagttgaaataggtccc	ggacgagaagaatcaactc + gacgtctgggttatcacg
Tcas_RDL 3a6a	gtgctgctggccctcg + tcccaaatagacgtcgatc	ctcagtatcagctccgtc + ggtcagggttaattacggtc
Tcas_RDL 3a6b	gtgctgctggccctcg + tcccaaatagacgtcgatc	ctcagtatcagctccgtc + gtgaggctgatctccatg
Tcas_RDL 3b6a	gtgctgctggccctcg + tcccaaatagacgtcgatc	ctcgctgtccgaagtgaa + ggtcagggttaattacggtc
Tcas_RDL 3b6b	gtgctgctggccctcg + tcccaaatagacgtcgatc	ctcgctgtccgaagtgaa + gtgaggctgatctccatg
Tcas_RDL 3c6a	gtgctgctggccctcg + tcccaaatagacgtcgatc	tcgctgtccgaggtcca + ggtcagggttaattacggtc
Tcas_RDL 3c6b	gtgctgctggccctcg + tcccaaatagacgtcgatc	tcgctgtccgaggtcca + gtgaggctgatctccatg