*ETH*, *EH* and *CCAP* play different but essential roles in the molting process of mud crab, *Scylla paramamosain*

Supplementary Material

# Supplementary Data

ATGCTCTCTGTTCTGGACTCAAGAGCAGGAATGGCGTGGTTGGTGGCGGCGACTGTGCTGGCTGTGGTGGTCAGCGTAGCGCGTGCTGACGCTGGACACTTCTTCGCAGAGACTCCCAAACACCTGCCCAGGATCGGACGGCGAGGGGACCTTCCGCCCTTGACCACGTTGCTATCAGAGGAGGACGCCCGAAGCTCCGGCGCAGGCACTCGGAGCATGACGGAGGCACTGGCGGGGCTGGACAGTGATGGGGACGGCTGCATTGGAGTAGGAGAGCTGCTGCGCATTCCTGCAGTGAGGGTAGCACTACTCCTACAGAACCCCGCCCTCCTAACCCCCGCCAACCCCGCCTCTCCAGAAGCTGACGGACACGCCACCGAGGACACCTTTGCCTCAGATCGCCGACCTGAACCCCGGCTCCTGCGTTACCTGCAGAAGTGA

**Supplementary Data S1:** ***ETH* nucleotide sequence with primer sets indicated**. Complete coding sequence of *Scylla paramamosain ETH* mRNA as found from transcriptome data on NCBI (accession number SRR3086589, SRR3086590 and SRR3086592) with localisation of the different primers that were selected for production of the dsRNA construct or for performing qRT-PCR assays. Sequence regions highlighted in yellow indicate the position of the primer set that was used for generating the *dsRNA* construct. Sequence regions highlighted in purple indicate the primer set used for qRT-PCR.

ATGTCACTCAAGCCTGAGGTGCGCGCCGTGGTGCTGGGTCTGGTGTGTCTGGTGGTCCTGGCGACGGTCGGAGAGGCTGCTACCATCATCGGCATGTGTATCAGTAACTGCGGCCAATGCAAGGAGATGTACGGGGACTATTTCCATGGCCAAGCGTGTGCGGAATCATGCATCAGGACTCATGGCGTGACAATCCCGGACTGCAACAACCCCGCTACCTTCAACCGTTTCCTCAAGAGATTTATCTAG

**Supplementary Figure S2:** ***EH* nucleotide sequence with primer sets indicated**. Complete coding sequence of *Scylla paramamosain EH* mRNA as found on NCBI (accession number: KR078366.1) with localisation of the different primers that were selected for production of the dsRNA construct or for performing qRT-PCR assays. Sequence regions highlighted in yellow indicate the position of the primer set that was used for generating the dsRNAconstruct. Sequence regions highlighted in purple indicate the primer set used for qRT-PCR.

ATGAAAATGTATTTTACAAGTTTGTCTGGACGCGCAGGACTGGTCACAGCAGCAACCATCCTCCTCCTTGCGTTTCTGGCCGCAGACACTGCAGCAGGACCCGTCGCTAAAAGGGATATTGACAGCCTTCTTGATGGAAAAATAAAACGCCCCTTCTGCAATGCCTTCACAGGGTGCGGCAAAAAACGGTCCGATCCTGAACTGGAGGGCCTTGCTTCTGGATCAGAGCTCAATGACATAACCAAGCATGTTCTCGCCGAGGCAAGGTTATGGGAGCAACTCCAGAACAAGATGGAAGCTATGCGCATGCTGGCATCTCGCATGGAGAGCCGTCCTATGTTCAGGAGGAAGAGGTCTCTTACTCAGCCACAGCATGATCACGTACACTCTGCTGCAGCTCTCGAACATAAGGGAGATGTTGAGAAACAGTGA

**Supplementary Figure S3:** ***CCAP* nucleotide sequence with primer sets indicated**. Complete coding sequence of *Scylla paramamosain CCAP* mRNA as found on NCBI (accession number: MN923209.1) with localisation of the primers that were selected for performing qRT-PCR assays. Sequence regions highlighted in purple indicate the primer set used for qRT-PCR.

# Supplementary Table

|  |  |
| --- | --- |
| Primer name | Sequence 5’→3’ |
| qSpETH-F  qSpETH-R  qSpEH-F | GAATGGCGTGGTTGGTG  GGGCGTCCTCCTCTGATA  TGGTGCTGGGTCTGGTGT |
| qSpEH-R | TGAGGAAACGGTTGAAGGT |
| qSpCCAP-F | GCAGGACCCGTCGCTAA |
| qSpCCAP-R | GCTCCCATAACCTTGCCTC |
| Sp18S-F | ACTCAACACGGGGAACCTCAC |
| Sp18S-R | CAAATCGCTCCACCAACTAAG |
| β-actin-F | CACACTTCACAGACCTTC |
| β-actin-R | CACAATGCCATCCTCTAC |
| T7SpETH-F | TAATACGACTCACTATAGGGGACTGTGCTGGCTGTGGTG |
| T7SpETH-R | TAATACGACTCACTATAGGGGCGATCTGAGGCAAAGGT |
| dsSpETH-F | GGACTGTGCTGGCTGTGGTG |
| dsSpETH-R | GGCGATCTGAGGCAAAGGT |
| T7SpEH-F | TAATACGACTCACTATAGGGCTATACCAAATGTCACTCAAGCCT |
| T7SpEH-R | TAATACGACTCACTATAGGGGCCCCACTCCTAGATAAATCTCT |
| dsSpEH-F | CTATACCAAATGTCACTCAAGCCT |
| dsSpEH-R | GCCCCACTCCTAGATAAATCTCT |
| T7SpCCAP-F1 | TAATACGACTCACTATAGGAAGTTTGTCTGGACGCG |
| T7SpCCAP-R1 | TAATACGACTCACTATAGGCTCCCATAACCTTGCCTC |
| dsSpCCAP-F1 | AAGTTTGTCTGGACGCG |
| dsSpCCAP-R1 | CTCCCATAACCTTGCCTC |

**Supplementary Table S1.** Primers used in the present study.