

**Supplementary materials**

**For**

**A Novel Antimicrobial Peptide Sparanegtin identified in**

***Scylla paramamosain* showing antimicrobial activity and**

**immunoprotective role *in vitro* and *vivo***

Xuewu Zhu<sup>1</sup>, Fangyi Chen<sup>1,2,3</sup>, Shuang Li<sup>1</sup>, Hui Peng<sup>1,2,3</sup>, Ke-Jian Wang<sup>1,2,3,\*</sup>

1State Key Laboratory of Marine Environmental Science, College of Ocean & Earth Sciences, Xiamen University, Xiamen, Fujian, China

2State-Province Joint Engineering Laboratory of Marine Bioproducts and Technology, College of Ocean & Earth Sciences, Xiamen University, Xiamen, Fujian, China

3Fujian Innovation Research Institute for Marine Biological Antimicrobial Peptide Industrial Technology, College of Ocean & Earth Sciences, Xiamen University, Xiamen, Fujian, China

\* Correspondence: Ke-Jian Wang

College of Ocean & Earth Sciences, Xiamen University, Xiamen, Fujian 361102, PR China.

E-mail: wkjian@xmu.edu.cn (K.J. Wang)

**Table and Figures**

**Table S1 Sequences of primers used in the study.**

| Primers            | Sequence (5'-3')          |
|--------------------|---------------------------|
| SpToll2-qPCR-F     | GTCCTCTCGTCCAGCTTCATTGAGA |
| SpToll2-qPCR-R     | CAGGTGGGATCTTGCCATAGACAAT |
| SpSTAT-qPCR-F      | TATATGGCTGAACCGGCACC      |
| SpSTAT-qPCR-R      | AGCAAGCGAGTGATGTGTGA      |
| SpHyastatin-qPCR-F | TTACAACGCGAAGGTTCCGA      |
| SpHyastatin-qPCR-R | GGCTTGGTGCCTACTCCAAT      |

|                         |                           |
|-------------------------|---------------------------|
| <i>Sp</i> ALF2-qPCR-F   | CGCGTGTCTGATGCTTCTCGT     |
| <i>Sp</i> ALF2-qPCR-R   | ACCACACGTCTCCCCTGAAGT     |
| <i>Sp</i> Myd88- qPCR-F | AGAATACGGGAACTGTCTGGGT    |
| <i>Sp</i> Myd88-qPCR-R  | TGGTGACTGTGATGGAGATGGT    |
| <i>Sp</i> CAT-qPCR-F    | CAACACTCCCATCTTCTTCATCAGG |
| <i>Sp</i> CAT-qPCR-R    | TGTTGTTTCTGGACGCAGGGTGAT  |
| <i>Sp</i> SOD-qPCR-F    | GGGGATGGGAAACAACCTCTGGAT  |
| <i>Sp</i> SOD-qPCR-R    | GGTGCCTTGGTTAAATACACGGTGC |
| <i>Sp</i> GPx-qPCR-F    | GCAACCCAGTCAAGAGATTCAGC   |
| <i>Sp</i> GPx-qPCR-R    | AGGATGCAAGGAGGTGCTTCTG    |

---

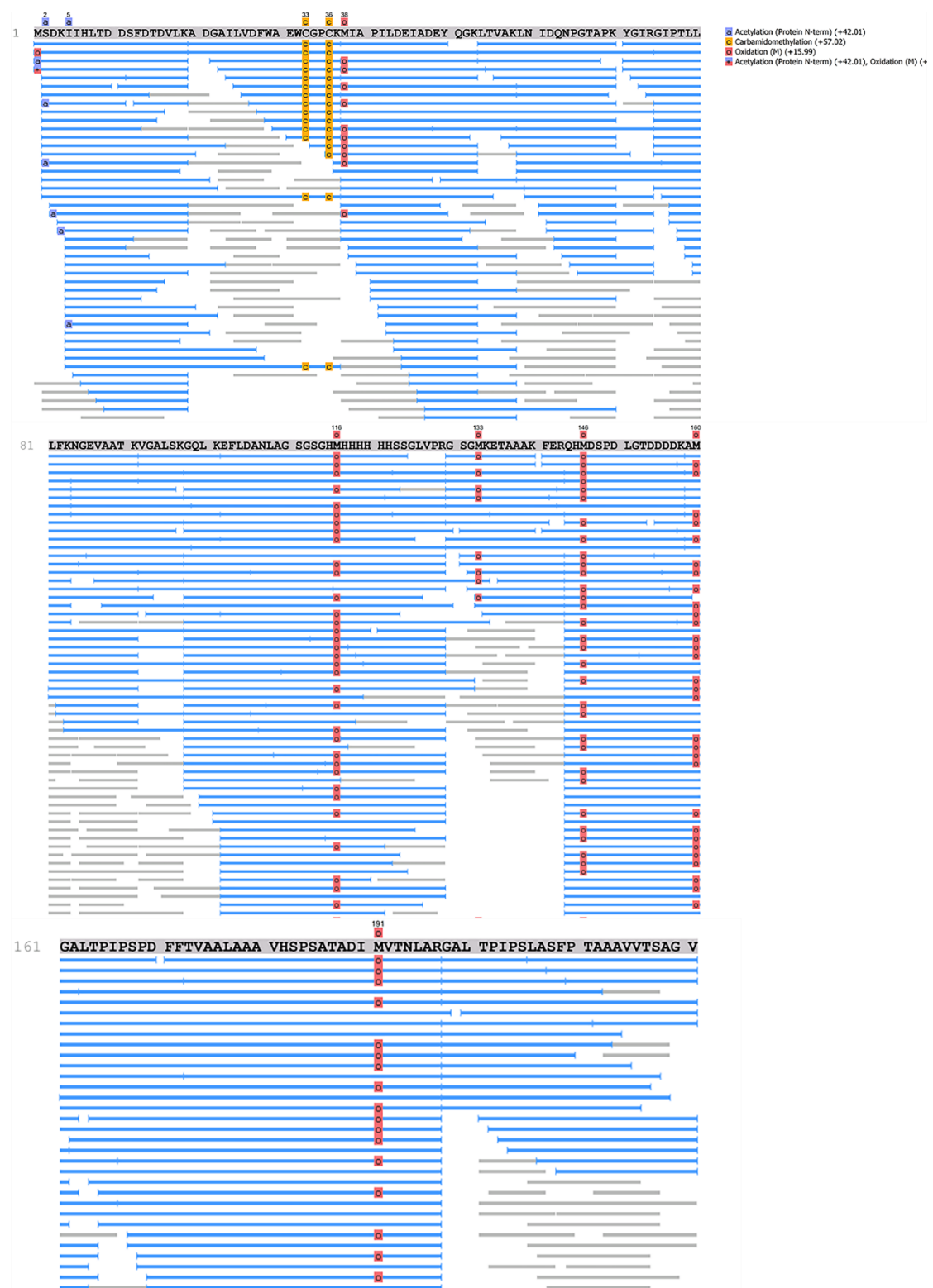


Figure S1 Mass spectrometry analysis of rSparanegtin.