Accepted Manuscript

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PII: S1050-4648(18)30107-4

DOI: 10.1016/j.fsi.2018.02.045

Reference: YFSIM 5152

To appear in: *Fish and Shellfish Immunology*

Received Date: 4 December 2017

Revised Date: 19 February 2018

Accepted Date: 24 February 2018

Please cite this article as: Zhang H, Yao X, Ding Y, Xu Z, Liang R, Zhang Y, Wu Y, Li B, Guan B, PI3K signaling pathways modulated white spot syndrome virus (WSSV) replication in *Procambarus clarkii*, *Fish and Shellfish Immunology* (2018), doi: 10.1016/j.fsi.2018.02.045.

PI3K signaling pathways modulated white spot syndrome virus (WSSV) replication in *Procambarus clarkii*

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Abstract: The PI3K/AKT signaling pathway is commonly exploited to regulate viral replication and affect the fate of infected cells. In the present study, a PI3K-specific inhibitor (LY294002) was employed to pretreat crayfish to evaluate the effects of PI3K/AKT signaling pathway in WSSV replication. The results showed that the WSSV copy numbers in crayfish pretreated with LY294002 were significantly lower than those in Tris-HCl pretreatment crayfish on the sixth and tenth day after WSSV infection. In semigranular cells, the apoptosis rates were up-regulated on the third day post-WSSV infection, and a significantly lower proportion of apoptosis cells were