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

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

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