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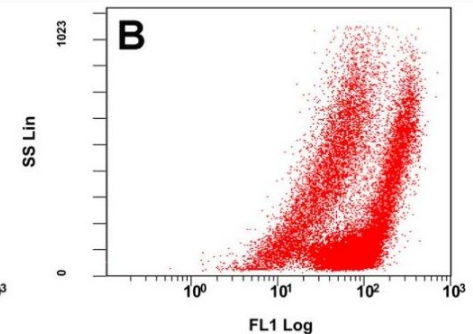
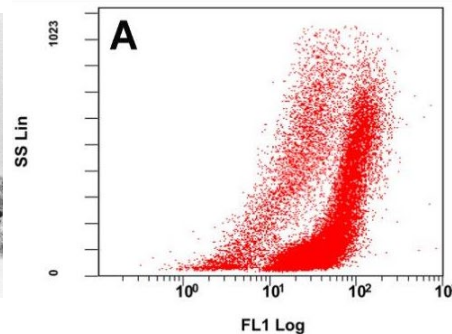
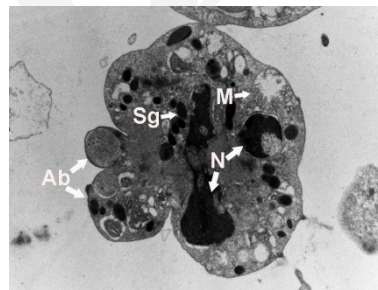
Effect of lipopolysaccharide on the hemocyte apoptosis of *Eriocheir sinensis*

Key words: Hemocytes, *Eriocheir sinensis*, Lipopolysaccharides, Apoptosis, Reactive oxygen species

Research Summary

This study mainly focused on the toxicity mechanism of lipopolysaccharide (LPS) in *Eriocheir sinensis* hemocytes, and summarized the key roles it played in the following aspects:

- Morphological change
- DNA-cleaved products with ladder patterns
- Apoptotic cell ratio
- Production of reactive oxygen species



Innovation points

A series of comprehensive figures were generated to show this research.

- Fig. 2 | Observation of LPS-induced hemocytes of *E. sinensis* by fluorescence microscopy with DAPI staining.**
- Fig. 3 | Morphological observation of LPS-induced hemocytes from *E. sinensis* under TEM .**
- Fig. 4 | Assay of DNA fragmentation of saline- and LPS-induced hemocytes by 2% agarose gel electrophoresis.**
- Fig. 5 | Annexin V-FITC/PI assay of hemocytes from *E. sinensis* by flow cytometry after 0-h , 1-h, and 2-h exposure to $10 \mu\text{g}\cdot\text{mL}^{-1}$ LPS.**
- Fig. 6 | Analysis of cellular ROS production of hemocytes treated with $10 \mu\text{g}\cdot\text{mL}^{-1}$ LPS by flow cytometry.**
- Fig. 7 | Outburst of ROS production in LPS-induced hemocytes marked with DCFH-DA and detected by laser confocal microscopy.**

Conclusion

- The study showed that the stimulation of LPS caused obvious apoptosis and ROS overproduction in hemocytes of *E. sinensis*, and overproduction of ROS was an important induction factor for hemocyte apoptosis.