

## *Supplementary material*

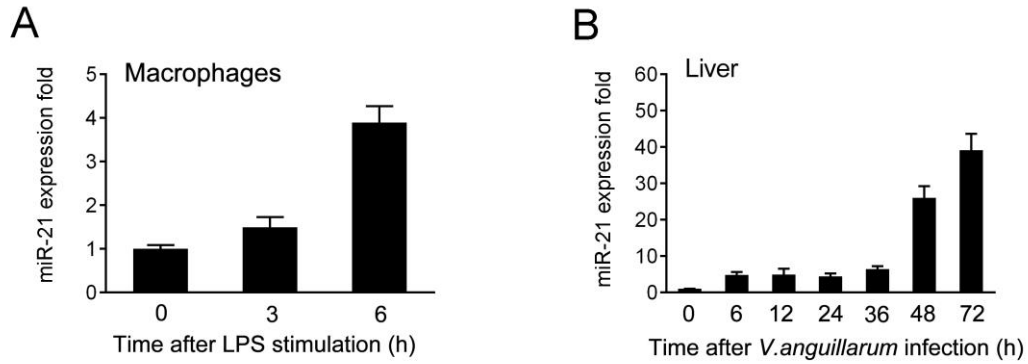
### **The inducible microRNA-21 negatively modulates the inflammatory response in teleost fish via targeting IRAK4**

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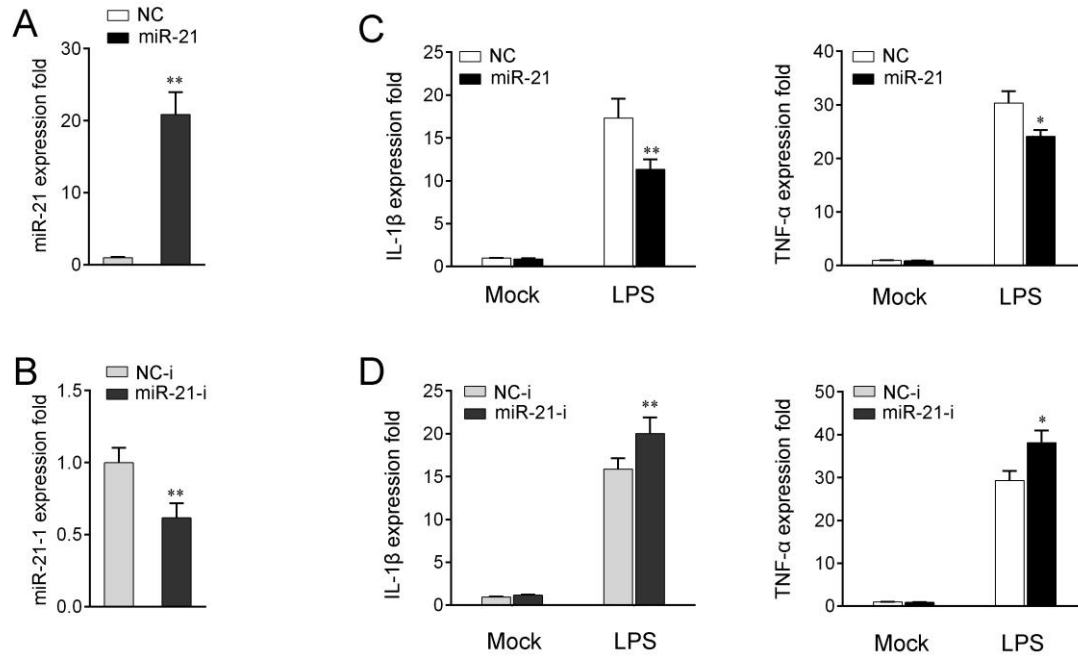
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**Supplementary Figure 1. The supplementary experiment for the expression analysis of miR-21.** (A) Expression profiles of miR-21 in LPS stimulated miiuy croaker macrophages. (B) Expression profiles of miR-21 after *V. anguillarum* infection in liver. The relative expression of miRNA were normalized to that of internal control U6 snRNA expression. Results are standardized to 1 in control samples. Data represented the mean  $\pm$  SE from three independent triplicated experiments.



**Supplementary Figure 2. The supplementary experiment for miR-21 suppresses LPS-induced inflammatory cytokine expression.** (A, B) Miiuy croaker macrophages were transfected with control mimics (NC) or miR-21 mimics (miR-21) (A) and miR-21 inhibitors (miR-21-i) and control inhibitors (NC-i) (B). At 48 h post-transfection, miR-21 expression was measured by qRT-PCR and normalized by U6 snRNA expression. (C, D) Macrophages were transfected with miR-21 or NC (C) and miR-21-i or NC-i (D) for 48 h. Then, the cells were stimulated with LPS and the expression levels of IL-1 $\beta$  and TNF- $\alpha$  were analyzed by qRT-PCR and normalized by glyceraldehyde 3-phosphate dehydrogenase (GAPDH) expression. Results are standardized to 1 in control cells. Data are presented as the means  $\pm$  SE from three independent triplicated experiments. \*\*,  $p < 0.01$ ; \*,  $p < 0.05$  versus the controls.