

Supplementary Materials

Interleukin 34 serves as a novel molecular adjuvant against *Nocardia seriolae* infection in largemouth bass (*Micropterus salmoides*)

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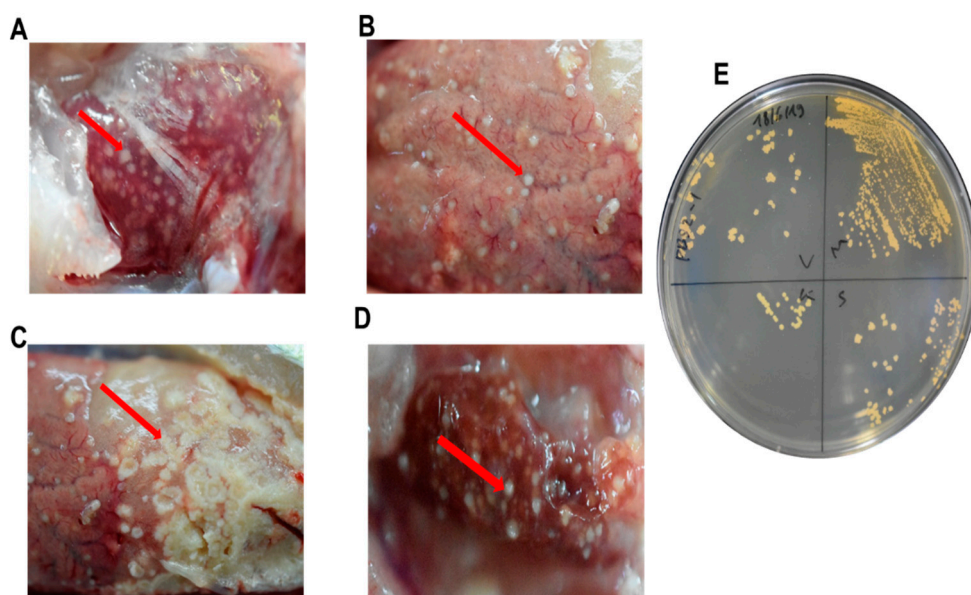


Figure S1. Multiple white nodules found in different organs of dead fish and re-isolation of *N. seriolae*. (A) Head kidney; (B) Liver; (C) Mesentery; (D) Spleen; (E) Pure colonies of *N. seriolae* growth in BHI-agar. Red arrow indicated the white nodules

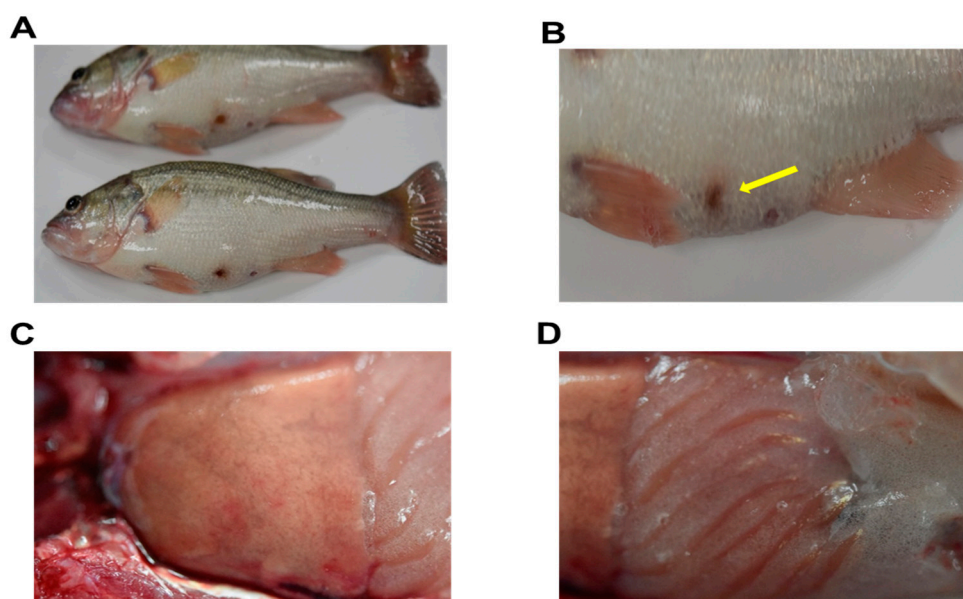


Figure S2. Pathological signs of survival fish in pcIL-34 vaccinated group. (A) Side view of fish; (B) No ulcer found in ventral side of fish – injection site (yellow arrows); (C) Liver; (D) Mesentery.

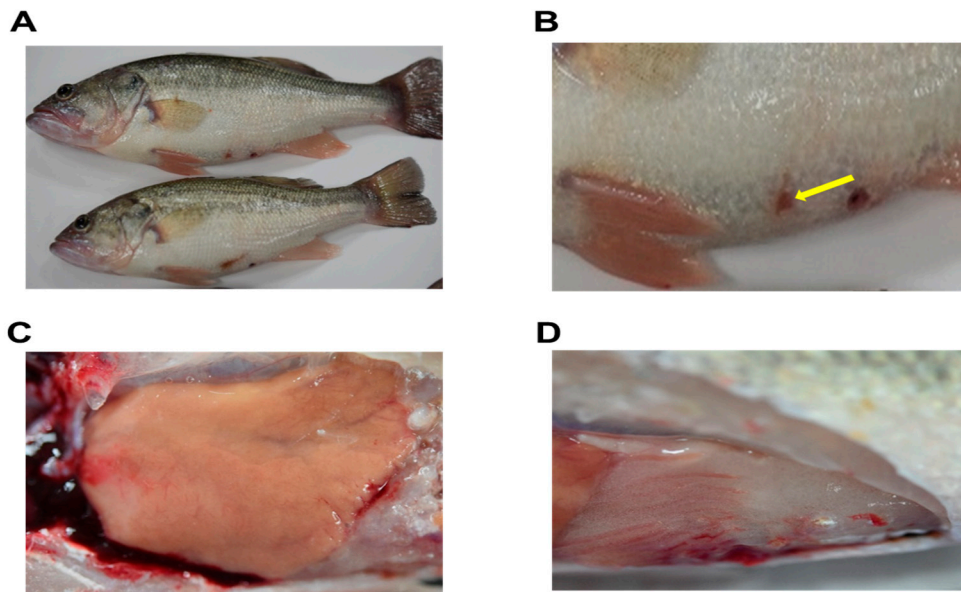


Figure S3. Pathological signs of survival fish in pcHrp1 vaccinated group. **(A)** Side view of fish; **(B)** No ulcer found in ventral side of fish – injection site (yellow arrows); **(C)** Liver; **(D)** Mesentery.

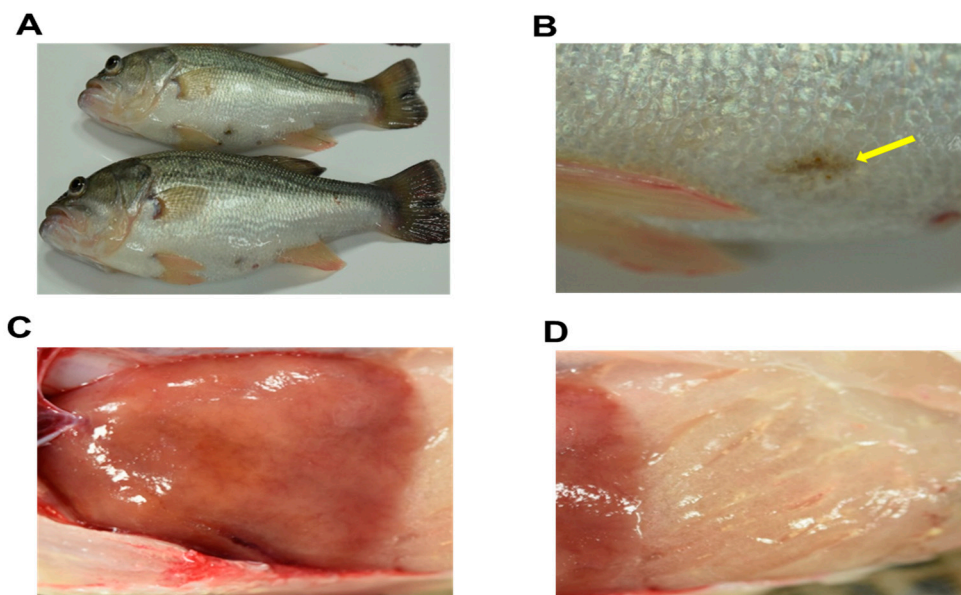


Figure S4. Pathological signs of survival fish in pcHrp1 + pcIL-34 vaccinated group. **(A)** Side view of fish; **(B)** No ulcer found in ventral side of fish – injection site (yellow arrows); **(C)** Liver; **(D)** Mesentery.

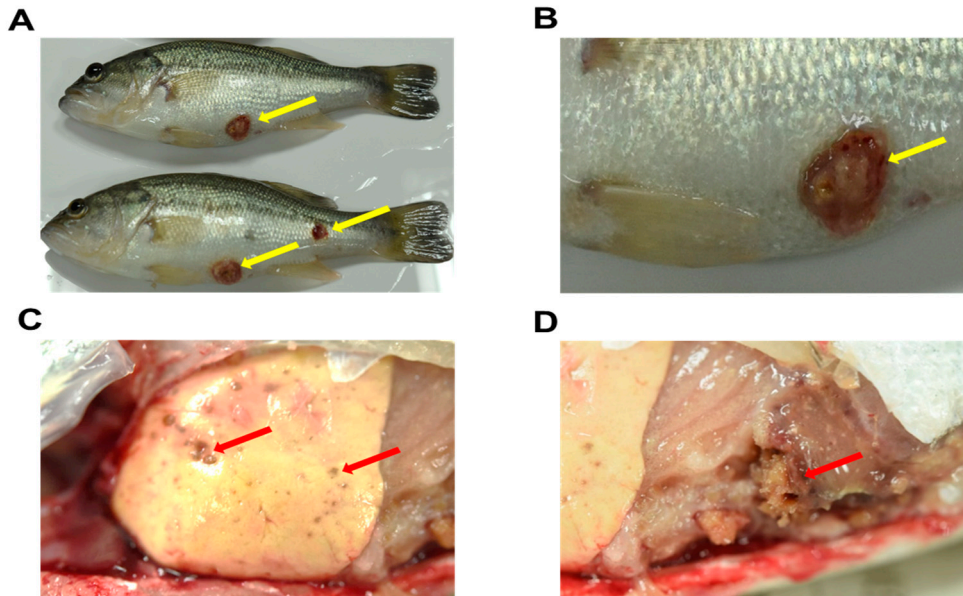


Figure S5. Pathological signs of survival fish in PBS injected group. **(A)** Side view of fish with ulcer at injection site (yellow arrows); **(B)** Ulcer found in ventral side of fish – injection site (yellow arrows); **(C)** Nodules found in liver (red arrow) ; **(D)** Nodule found in mesentery (red arrow).

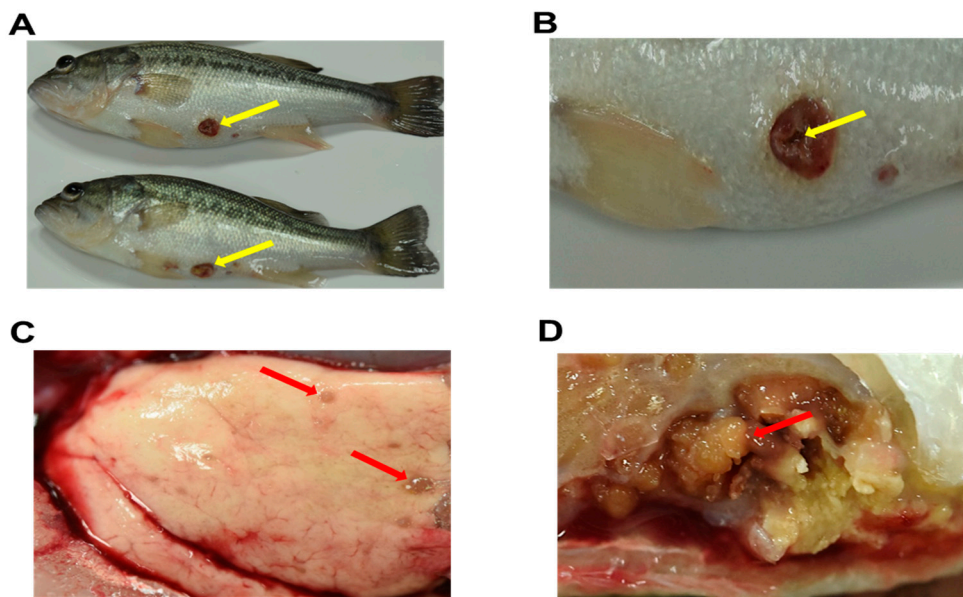


Figure S6. Pathological signs of survival fish in pcDNA3.1 injected group. **(A)** Side view of fish with ulcer at injection site (yellow arrows); **(B)** Ulcer found in ventral side of fish – injection site (yellow arrows); **(C)** Nodules found in liver (red arrow) ; **(D)** Nodule found in mesentery (red arrow).

