

Are alterin-producing *Pseudoalteromonas* the bacterial gofers in marine aquaculture ?

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Résumer (10-15 lignes max, calibre 12, interligne 1,5) :

By exploring the hemolymph-associated microbiota of the marine oysters, *Crassostrea gigas* and *Ostrea edulis*, we isolated five strains of *Pseudoalteromonas* exhibiting potent antibacterial activities against aquaculture pathogens (Desriac *et al*, 2020). These strains are phylogenetically closed. They belong to the *Pseudoalteromonas rhizosphaerae* specie and a new one, we called *Pseudoaltromonas ostreae* since the strains originated from *Ostrea edulis* (Cuny *et al*, 2022) The bioactive compounds are a family of cyclolipopeptide isoforms we named alterins (Desriac *et al*, 2020, Offret *et al.*, 2022). After binding to lipopolysaccharides, alterins provoke a membrane depolarization and permeabilization leading to bacterial lysis (Desriac *et al*, 2020). The alterin-producing *Pseudoalteromonas* strains were evaluated as probiotic candidate in marine aquaculture. In this contribution, we will examine the protective effect of alterin-producing *Pseudoalteromonas* strains against pathogenic bacteria in various marine animal breeding.

Références :

Cuny H. *et al*, - *Pseudoalteromonas ostreae* sp. nov., a new bacterial species harboured by the flat oyster *Ostrea edulis* | 2021 | IJSEM, <https://doi.org/10.1099/ijsem.0.00507071>

Desriac F. *et al*. Alterins Produced by Oyster-Associated *Pseudoalteromonas* Are Antibacterial Cyclolipopeptides with LPS-Binding Activity. *Mar. Drugs* | 2020 | [doi:10.3390/md18120630](https://doi.org/10.3390/md18120630).

Offret, C. *et al*. Alterins, a New Family of Marine Antibacterial Cyclolipopeptides. *Int. J. Antimicrob. Agents* | 2022 | [doi:10.1016/j.ijantimicag.2021.106514](https://doi.org/10.1016/j.ijantimicag.2021.106514).

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