عنوان مقاله:

Identification and validation of OmpK 3D structure and its topology in Vibrio harveyi

محل انتشار:

دومین کنفرانس بین المللی علوم و مهندسی (سال: 1394)

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خلاصه مقاله:

Vibrio harveyi is a gram-negative, motile rod bacterium ubiquitous in marine and estuarine aquatic ecosystems. It is one of causative agents of the systemic disease, vibriosis. Although some antibiotics (e.g. chloramphenicol) could effectively control the infections of V. harveyi, the application of chemotherapy is not the perspective for the aquaculture industry because of its drug-resistance in pathogens. The vaccination against Vibrio species is now recognized a viable strategy for controlling vibriosis. Recent studies have emphasized the role of the outer membrane proteins (OMPs) of pathogenic bacteria in protective antigenicity, because of their exposed epitopes on the cell surface and being easily recognized as foreign substances by immunological defence system of the hosts. Among potential protective OMPs of Vibrio species, the outer membrane protein K(OmpK) deserve our attention. Results indicate that the OmpK is an effective vaccine candidate against V.harveyi. In order to explore the potential application of OmpK as a vaccine candidate for Orange-spotted grouper (Epinephelus coioides), the present study .deals with the bioinformatics study of OmpK structute and evaluates topology of the protein in V. harveyi

کلمات کلیدی: Outer membrane protein K(OmpK), Bioinformatics, Vibrio harveyi

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