

عنوان مقاله:

Isolation, identification and characterization of new luminous bacteria from Chah Bahar Port, southern marine habitat of Iran

محل انتشار:

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خلاصه مقاله:

Coastal region of Chah Bahar port, Sea of Oman, was screened for the presence of bioluminescence bacteria for the first time. Water samples were taken from surface and subsurface layers and immediately spread on nutrient seawater complete (SWC) agar. Luminous colonies were observed after an overnight incubation at ۲۵°C. Among twenty luminous isolates, four of them were selected for preliminary bacterial identification based on morphological and physiological characteristics. ۱۶S rRNA genes of selected bacteria were then sequenced in order to be submitted in GeneBank database as new strains and performing phylogenetic analysis. Four different submitted bacterial strains are as follow, *Vibrio* sp. Persian ۱, *Vibrio* sp. Persian ۲, *Vibrio* sp. Persian ۳, and *Vibrio* sp. Persian ۴ with accession numbers of KC۵۰۵۶۳۹, KC۷۶۵۰۸۸, KC۷۶۵۰۸۹, and KC۸۹۶۴۱۷, respectively. Light emission of isolated luminous bacteria was measured using luminometer. *Vibrio* sp. Persian ۱ was found as the best light emitter with counts per second/OD ۶۰۰ nm equal to ۱۰×۱۰^۶ RLU/Sec/OD. Isolated *Vibrio* species were tested for their ability to form biofilm. *Vibrio* sp. Persian ۳ showed weak ability to produce biofilm while other species were considered as moderate biofilm producers.

کلمات کلیدی:

Bioluminescence, ۱۶S rRNA genes, *Vibrio*, Luminometer, Biofilm

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