

عنوان مقاله:

Investigation of Effects of NaCl Concentration on the Moderately Halophilic Bacteria (MHB) and its Growth

محل انتشار:

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خلاصه مقاله:

Moderately halophilic bacteria (MHB) form a heterogeneous group of microorganisms and can grow in a relatively wide range of sodium chloride concentrations. These bacteria accumulate high concentrations of osmotic compatible organic compounds (osmolytes) to create osmotic balance. The MHB were isolated by sampling from Persian Gulf water and various parts of a leather factory. The specimens were enriched in a culture medium specific to halophiles and the bacteria were isolated and purified using streak plate method. The effects of different NaCl concentrations and the presence or absence of various salts on their growth were examined through turbidimetry and ELISA reader. A total of eight bacterial strains were isolated from the factory and eight strains from the Persian Gulf, and subjected to extensive phenotypic and biotypic studies. Results of halophilic status of isolated bacteria showed that 10 isolates were halophiles. Moreover, the morphology and the Gram reaction affected the halophilic status and growth of isolated bacteria at various NaCl concentrations. The presence of halophilic-specific salts in the culture medium could improve their growth of isolated bacteria.

کلمات کلیدی:

Moderately Halophilic Bacteria, NaCl, Salts, Turbidimetry

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