عنوان مقاله:

Genetic Diversity of Bioactive Producer Streptomyces SPP. Isolated From Marine Sediments

محل انتشار:

نخستین همایش ملی یافته های نوین میکروبیولوژی (سال: 1394)

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خلاصه مقاله:

Our knowledge of microbial diversity, antimicrobial and biological control, ability of the microbes isolated from protected areas is inadequate, yet this is critical in understanding the biotechnological application potential of this microbial diversity The Streptomyces spp. are the most valuable prokaryotic cells in economic and biotechnological manner. They affection composition about half of bioactive secondary metabolites and substantially includes antibiotics, antitumor agents and enzymes. The aim of this study was isolation and characterization antagonistic effects of marine streptomyces from east coasts of Guilan province (Iran) and determination of antimicrobial properties isolates against standard strains including Escherichia coli, Bacillus cereus, Pseudomonas aeruginosa and clinical isolate of Pseudomonas aeruginosa. In this study, 50 coastal sediment samples collected from 6-10 cm depth of Chamkhale coastal regions and then pure cultures prepared from 60 isolated specimens. In this study we used for isolation of Streptomyces starch casein agar (SCA) medium and for primary screening, from well diffusion method and disk diffusion with cultured Streptomyces and the ISP2 medium was used for production of antibiotics by submerge method. We used the SCA medium for final screening and determination of antibiotic susceptibility in well diffusion method. In our investigation they obtained results indicated that two isolates showed the best antimicrobial activity. These strains identified with molecular methods and finally sequenced. Antibacterial activity of isolated Streptomyces spp. from coastal regions showed that gram positive bacteria was more sensitive compared to gram negative .bacteria

کلمات کلیدی:

Sediment Streptomyces, Genetic diversity, Agar Well Diffusion Method