Abstract

The widespread use of antibiotics caused resistant strains of microorganisms and increasing of worldwide antibiotic resistance. Hence the researches on new naturall antimicrobial agents as new drugs are important. According to previous researches, some multicellular marine algae have significant antibacterial properties. In this study, antibacterial and antifungal effects of organic and aqueous extracts of *Sargassum glaucescens* and *Gracilaria arcuata* (collected from Chabahar's coast) were tested on three strains of Gram-negative bacteria: *E. coli*, *Proteus vulgaris, Vibrio cholerae* and two strains of Gram-positive bacteria to *L. monocytogenes* and *Staphylococcus aureus* and two species fungal *Aspergillus flavus* and *Candida albicans*. Extracts was performed by immersion method. Antibacterial effects was investigated by the disk diffusion method and serial dilutions in tube to determine the minimum inhibitory concentration. The ethanolic extract of *Gracilaria arcuata* showed the highest impact on the *Vibrio cholerae* by significant differences with the antibiotic Neomycin business (P<0.05). The aqueous extract of algaes did not show any antibacterial and antifungal effect. Ethanolic extract of *S. glaucescens* and *G. arcuata* algaes has a significant antibacterial effect on *L. monocytogenes, Vibrio cholerae, E. coli and Staphylococcus aureus*.

Keywords: *Sargassum glaucescens*, *Gracilaria arcuata*, Antibacterial, Antifungal, Extract, Chabahar

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Investigation of antibacterial and antifungal of Chabahar Costal Seaweeds extract (*Sargassum* and *Gracilaria*)

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