

Antifungal metabolites from sponge associated marine *Streptomyces* sp. strain (ERIMA-01) from south east coast of India

Naif Abdullah Al-Dhabi
King Saud University, Saudi Arabia

Streptomyces sp. strain ERIMA-01 was isolated from the marine sponge collected from Tsunami affected area of south east coast of India. The strain was grown in ISP 2 medium to study the morphology and biochemical characteristics. The strain was subjected to 16S rRNA and identified as *Streptomyces* sp. The *Streptomyces* sp. Inhibited the growth of all the fungi when tested using the streak method. The strain was grown in different media. The fermented broth was collected and tested against fungi. The broth showed good antifungal activity. Antifungal metabolite production of ERIMA-01 was evaluated using five different fermentation media. Most active broth (MNGA) was extracted with ethyl acetate. The ethyl acetate extract inhibited the growth of all the tested fungi (*Trichophyton mentagrophytes* at 62.5 µg/ml, *Trichophyton rubrum* at 31.25 µg/ml, *Trichophyton simii* at 125 µg/ml, *Scopulariopsis sp* at 125 µg/ml, *Aspergillus flavus* at 250 µg/ml, *Aspergillus niger* at 62.5 µg/ml, *Botrytis cinerea* at 125 µg/ml, *Candida albicans* at 15.2 µg/ml, *Candida krusei* at 31.25 µg/ml, *Candida tropicalis* at 125 µg/ml and *Candida parapsilosis* at 125 µg/ml. Most active ethyl acetate extract was subjected to GC-MS analysis which showed 38 components. The major compound was 1- tetradecanol (11.59%).

naif-al-dhabi@hotmail.com