

Cytotoxic Effect of Crude Extract of Sea Pen *Virgularia gustaviana* on HeLa and MDA-MB-231 Cancer Cell Lines

Authors : Sharareh Sharifi, Pargol Ghavam Mostafavi, Ali Mashinchian Moradi, Mohammad Hadi Givianrad, Hassan Niknejad

Abstract : Marine organisms such as soft coral, sponge, ascidians, and tunicate containing rich source of natural compound have been studied in last decades because of their special chemical compounds with anticancer properties. The aim of this study was to investigate anti-cancer property of ethyl acetate extracted from marine sea pen *Virgularia gustaviana* found from Persian Gulf coastal (Bandar Abbas). The extraction processes were carried out with ethyl acetate for five days. Thin layer chromatography (TLC) and high-performance liquid chromatography (HPLC) were used for qualitative identification of crude extract. The viability of HeLa and MDA-Mb-231 cancer cells was investigated using MTT assay at the concentration of 25, 50, and a 100 $\mu\text{l/ml}$ of ethyl acetate is extracted. The crude extract of *Virgularia gustaviana* demonstrated ten fractions with different Retention factor (Rf) by TLC and Retention time (Rt) evaluated by HPLC. The crude extract dose-dependently decreased cancer cell viability compared to control group. According to the results, the ethyl acetate extracted from *Virgularia gustaviana* inhibits the growth of cancer cells, an effect which needs to be further investigated in the future studies.

Keywords : anti-cancer, Hela cancer cell, MDA-Md-231 cancer cell, *Virgularia gustavina*

Conference Title : ICNP 2017 : International Conference on Natural Products

Conference Location : London, United Kingdom

Conference Dates : June 28-29, 2017