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Anticancer activity of 10456A extracts

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Cancer is one of the most prominent diseases in humans and currently there is considerable scientific and commercial interest in the continuing discovery of new anti-cancer agents from natural product sources. Emerging evidence has demonstrated that many natural products isolated from plant sources possess antitumor properties. We determined the cytotoxic and anticancer activities of 10456A extracts. Dichloromethane/methanol (1:1) and aqueous extracts were tested for their growth inhibitory effects in vitro against three human cancer cell lines: Breast cancer cells, MCF7; renal cancer cells, TK10 and melanoma, UACC62 using the Sulforhodamine B (SRB) assay. Extracts were classified into four categories based on their total growth inhibition of the cell lines. Extracts which exhibited a total growth inhibition (TGI) of less than 6.25 µg/mL were regarded as potent. Dichloromethane/methanol extract of 10456A exhibited pronounced activity especially against the melanoma cell line UACC- 62. The aqueous extract was classified as weakly active. So evaluation of 10456A extracts in the prevention and treatment of cancer is recommended. Active ingredients from these extracts were isolated.

Biography

Samson Sitheni Mashele is currently the HOD of Health Sciences. He started his academic career at the then University of the North where he obtained his junior degree in science. His quest to quench his academic thirst led him to the Medical University of South Africa (MEDUNSA) where he excelled in medical science and was given a scholarship sponsored by USAID to do part of his Doctorate research at the University of Michigan (USA). He was also a Visiting Scholar at the University of Michigan (USA). He is serving on the editorial boards of many international journals and as panel member in research foundations. He has won many awards as the best facilitator several times in South Africa and overseas. His research interests are multi-disciplinary and they include the applications of medical science in discovering novel anti-cancer, anti-diabetic, anti-hypertensive and anti-HIV/AIDS drugs from plants. He has for many years worked with pharmaceutical companies in the development and validation of drugs.

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