

Possible Anticancer, Antioxidant and Antimicrobial Potential of *Euphorbia inarticulate* Plant Extract in *In Vitro* Studies

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Objective: To evaluate the anticancer activity and the DPPH Radical Scavenging Activity of the methanolic extract of *Euphorbia inarticulate* plant from Jazan region, Saudi Arabia, in an *in vitro* study, which could be beneficial in anticancer therapy against human breast cancer cell line (MCF-7), prostate cell line (PC-3), human hepatocellular carcinoma cell line (HEPG2) and normal breast epithelial cell line (MCF-10A). The human foreskin fibroblast cell line, (Hs68) was also included in the cell panel. Doxorubicin and 5-Fluorouracil, broad-spectrum anticancer drugs, were used as the positive control.

Methods: Cytotoxicity of *Euphorbia inarticulate* plant extract was investigated by employing MTT assay.

Results: Methanolic extract of *Euphorbia inarticulata* showed significant toxicity against cancer cells. Comparison with positive control signifies that cytotoxicity exhibited by methanol extract might have moderate activity.

Conclusion: To the best of our knowledge, this is the first report to demonstrate the cytotoxicity of *Euphorbia inarticulate* plant extract. However, the observed toxicity of this plant extract needs to be confirmed by additional studies. Based on our results, further examination of the potential anticancer properties of *Euphorbia inarticulate* plant species and the identification of the active ingredients of these extracts is warranted.

Biography:

Ghaliah H. Almalki completed her Bachelor of Science in Biology in 2009 from University of Taif, S.A. She obtained her Master of Science in Biology in 2013 from University of King Abdul-Aziz, S.A. Currently she is a highly motivated Academic teacher with a degree in Biology and 3 years experience in an academic setting as a lecturer. Demonstrated ability to connect with students and develop individualized plans for academic success. Offering exceptional organizational and problem-solving skills. Her research interests include Nutrition Science, Cell physiology, Histology and Cell response to drug results and study cellular effects after exposure to new treatments.