



Unveiling the Potential of *Fagonia Arabica*-Loaded Niosomes on Blood Cancer Cells: A Translational Approach toward Cancer Treatment

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KEYWORDS	ABSTRACT
Cancer; Cell Lines; Encapsulation Efficiency; Nanoformulation; Tumor Growth	The plant known as <i>Fagonia</i> (<i>Fagonia arabica</i>), has long been utilized for a variety of reasons in herbal therapy. Alternative medicine proponents <i>Fagonia</i> niosomes, which was derived from the plant <i>Fagonia arabica</i> , may be beneficial in the treatment of cancer, including blood cancer. The synthesized niosomes were used to evaluate cancer associated gene expression, and apoptosis activity to explore fundamental biological processes and develop new strategies for diagnostics and therapeutics. According to histological analysis, the nano-formulation significantly reduced tumor growth in tissues that have been triggered by blood cancer. Additionally, biosynthesized niosomes were discovered to possess specific anticancer properties and the potential to be employed in targeted cancer indication treatment. A large-scale synthesis of smart drug delivery systems is achievable, according to the study's findings, and the developed nano-carriers are probably sufficiently effective to warrant additional research into potential cancer research and for treatment purposes.
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