

ANTITUMOR ACTIVITY OF LEVAN-LOADED LIPOSOMES

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Levan is a fructose polymer produced by *Zymomonas mobilis*. Antiproliferative activity has also been reported against cancer cells human lines (HepG2 and SNU-1) and antitumor activity against sarcoma 180 and Ehrlich carcinoma. The pharmaceutical nanotechnology has as goal to develop drug delivery systems containing bioactive agents in the form of device, as liposomes, that can offer an improvement in the efficacy of existing drugs, gradual and controlled release of the drug and increase of the acceptance of the therapy for the patient. The present work proposes the evaluation of the antitumor activity of levan-loaded liposomes (Lev-Lipo) with intention to develop new therapeutic dosage forms containing drugs derived from biotechnology for association with other chemotherapics in the cancer therapy. Lev-Lipo were prepared according to the thin film formed method. The antitumor activity of Lev-lipo was evaluated in Balb C mice with Sarcoma 180. The tumor inhibition in the groups treated with levan in solution and Lev-Lipo was of 44,28% and 88,31%, respectively. The therapeutical efficacy of the Lev-lipo is practically the double of the levan in solution being this result a step in the development of a new pharmaceutical form for the cancer therapy.

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