

Abstract

Development of Phytosterol-Solid Lipid Nanoparticles for Lung Cancer Therapy

Lack of selectivity is one of the biggest problems to overcome in the development of effective drug delivery systems. Consequently, solid-lipid nanoparticles (SLN) have been studied due to their potential simultaneously increase the drug solubility and biological targetability for cancer therapy. We developed an SLN formulation using a phytosterol as the cytotoxic agent. Our system demonstrated strong cytotoxicity on lung cancer (A549 cell line) and caspase-independent apoptotic pathways induction.