
Molecular mechanism of silymarin-induced apoptosis in a highly metastatic lung cancer cell line anip973.


Source

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Abstract

BACKGROUND:

Silymarin, the main flavonoid constituent element extracted from Silybum marianum possessing antioxidant activity, is already known to be able to block the NF-κB activation process and result in cell apoptosis, implicating silymarin's potential to control cancer cell growth.

MATERIALS AND METHODS:

In this study, based upon the above assumption, silymarin was administered to a highly metastatic lung cancer cell line Anip973 to test silymarin's role in cancer cell proliferation. Results: Silymarin had significant inhibitory effects on the proliferation of Anip973 cells in a dose-dependent and time-response manner within 48 hours. Silymarin can induce Anip973 apoptosis.

CONCLUSIONS:

Silymarin may in vitro inhibit the proliferation of the human lung adenocarcinoma cell line Anip973 and induce apoptosis via the mitochondria-dependent caspase cascade pathway.