

12-Oleanene-3,6-diol

Chemical Properties

CAS No.:	41498-79-7
Formula:	C30H50O2
Molecular Weight:	N/A
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).

Biological Description

Description	12-Oleanene-3,6-diol has antitumor activity, it can induce apoptosis and has inhibition effect on the proliferation in RKO cell line.
In vitro	To investigate the effects of novel triterpene (12-Oleanene-3,6-diol) from <i>Celastrus hypoleucus</i> on the proliferation and apoptosis of human colorectal cancer cell line RKO. METHODS AND RESULTS: The inhibitory effect of the novel triterpene on RKO cell proliferation was assayed by MTT dye reduction. The morphology of apoptotic cells was observed with AO/EB double fluorescence staining and HE staining, DNA fragment with electrophoresis on agarose gels, sub-diploid peak and cell cycle with flow cytometer (FCM). Novel triterpene (12-Oleanene-3,6-diol) from <i>C. hypoleucus</i> significantly inhibited proliferation of RKO cells in dose-dependent and time-dependent manner, the IC50 was (12.20 +/- 0.79) microg x mL(-1) at 48 h. Typical apoptotic changes were observed in RKO cells under the fluorescence microscope and the light microscope. DNA ladder was detected on agarose gels at concentrations from 10 microg x mL(-1) to 20 microg x mL(-1) at 48 h. With FCM methods, dose-dependent apoptosis-induced effect was observed in RKO cell line after treatment of triterpene for 48 h, and the apoptotic rates were increased from (2.93 +/- 0.84) % to (50.79 +/- 6.61) % at concentrations from 2.5 microg x mL(-1) to 20 microg x mL(-1). DNA histograms data from FCM analysis showed that the number of cells was obviously reduced during G0-G1 phase and G2-M phase, but not during S phase for RKO cell line after treatment with various concentrations of the triterpene for 48 hours. CONCLUSIONS: Novel triterpene (12-Oleanene-3,6-diol) from <i>C. hypoleucus</i> can induce apoptosis and has inhibition effect on the proliferation in RKO cell line.

Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble
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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

Reference

1. Antitumor effects of novel triterpene from *Celastrus hypoleucus* on human colorectal cancer cell line RKO in vitro. China journal of Chinese materia medica, 2006, 31(17):1450-1453.

Inhibitors · Natural Compounds · Compound Libraries

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