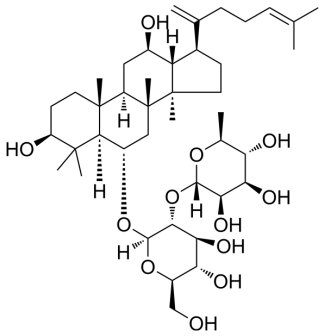
Ginsenoside Rg6

Cat. No.: HY-N0907
CAS No.: 147419-93-0
Molecular Formula: $C_{42}H_{70}O_{12}$
Molecular Weight: 767
Target: NF-κB; Apoptosis
Pathway: NF-κB; Apoptosis
Storage: 4°C, protect from light
* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (130.38 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.3038 mL	6.5189 mL	13.0378 mL
	5 mM	0.2608 mL	1.3038 mL	2.6076 mL
	10 mM	0.1304 mL	0.6519 mL	1.3038 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (3.26 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (3.26 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (3.26 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Ginsenoside Rg6 inhibits TNF-α-induced NF-κB transcriptional activity with an IC_{50} of 29.34 μM in HepG2 cells. Ginsenoside Rg6 also exhibits apoptosis-inducing effect.

IC_{50} & Target

NF-κB 25.12 μM (IC_{50}, in SK-Hep1 cell)	NF-κB 29.34 μM (IC_{50}, in HepG2 cell)	Apoptosis

In Vitro

Ginsenoside Rg6 inhibits TNF-α-induced NF-κB transcriptional activity with an IC_{50} of 25.12±1.04 μM in SK-Hep1 cells, consistent with the data from HepG2 cells[1]. Ginsenoside Rg6 exhibits obvious anti-proliferative and apoptosis-inducing

effects when it is applied to JK cells in vitro. Ginsenoside Rg6 blocks S arrest in the cell cycle. CCK-8 method shows that after Ginsenoside Rg6 is used, several groups with different concentrations obviously inhibits JK cell proliferation in human lymphocytoma, with evident dose dependency. Based on IC_{50}, the median inhibitory concentration of Ginsenoside Rg6 is 83.08 μM[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

PROTOCOL

Cell Assay [1]

HepG2 and SK-Hep1 cells are maintained in Dulbecco's modified Eagle's medium containing 10% heat-inactivated fetal bovine serum, 100 units/mL Penicillin, and 10 μg/mL Streptomycin, at 37°C and 5% CO_2. Cell-Counting Kit (CCK)-8is used to analyze the effect of compounds (e.g., Ginsenoside Rg6; 0.01, 0.1, 1 and 10 μM) on cell toxicity. Cells are cultured overnight in 96-well plate (~1×10^4 cells/well). Cell toxicity is assessed after the addition of compounds on dose-dependent manner. After 24 h of treatment, 10 μL of the CCK-8 solution is added to triplicate wells, and incubated for 1 h. Absorbance is measured at 450 nm to determine viable cell numbers in wells[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Cho K, et al. Inhibition of TNF-α-Mediated NF-κB Transcriptional Activity by Dammarane-Type Ginsenosidesfrom Steamed Flower Buds of Panax ginseng in HepG2 and SK-Hep1 Cells. Biomol Ther (Seoul). 2014 Jan;22(1):55-61.

[2]. Chen B, et al. Apoptosis-inducing effect of ginsenoside Rg6 on human lymphocytoma JK cells. Molecules. 2013 Jul 9;18(7):8109-19.

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