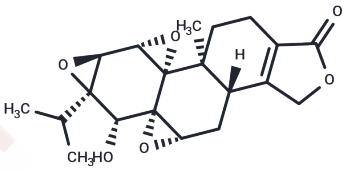
Data Sheet (Cat.No.T2179)

TargetMol

Triptolide

Chemical Properties



CAS No. :	38748-32-2
Formula:	C20H24O6
Molecular Weight:	360.4
Appearance:	no data available
Storage:	store at low temperature Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Triptolide (PG490) belongs to the tricyclic diterpenoid group of natural products and is an inhibitor of NF-κB activation. Triptolide exhibits immunosuppressive, anti-rheumatic, anti-inflammatory, anti-proliferative and anti-tumor activities.
Targets(IC50)	Apoptosis,Mdm2,HSP,NF-κB
In vitro	**METHODS**: Neuroblastoma cells BE(2)-C were treated with Triptolide (5-100 nM) for 24 h. Cell viability was measured using the CCK-8 Assay. **RESULTS**: A concentration-dependent response to Triptolide was observed in BE(2)-C cells. At 50 nM Triptolide, cell viability was significantly reduced to 50%. [1] **METHODS**: Breast cancer cells MCF-7 were treated with Triptolide (10-50 nmol/L) for 24 h, and the expression levels of target proteins were detected using Western Blot. **RESULTS**: Triptolide decreased the messenger RNA and protein levels of ERα in MCF-7 cells in a dose-dependent manner. [2]
In vivo	**METHODS**: To assay antitumor activity in vivo, Triptolide (0.4 mg/kg) was administered by gavage to BALB/c-nu+/nu+ mice harboring the breast cancer tumor MCF-7 once daily for three weeks. **RESULTS**: Triptolide inhibited the growth of MCF-7 cell xenografts in a mouse model. [2] **METHODS**: To investigate the effects on ulcerative colitis (UC), Triptolide (0.1-0.4 mg/kg) was administered orally to DSS-induced UC mice once daily for seven days. **RESULTS**: Triptolide has anti-inflammatory and therapeutic effects on UC mice. [3]
Cell Research	Triptolide is dissolved in DMSO (1 mg/mL) and stored, and then diluted with RPMI 1640 medium before use[3]. The viability of differentiated PC12 cells treated with different concentrations of Triptolide. After differentiated PC12 cells are cultured on 96-well plates with RPMI 1640 medium for stabilization, differentiated PC12 cells are incubated with different concentrations of Triptolide (0.01, 0.1, and 1 nM) for 24 hours. The concentrations in this study are chosen. Then cell viability is determined by the MTT assay. Each condition and experiment is repeated three times[3].

Solubility Information

Solubility	DMSO: 50 mg/mL (138.73 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.7747 mL	13.8735 mL	27.7469 mL
5 mM	0.5549 mL	2.7747 mL	5.5494 mL
10 mM	0.2775 mL	1.3873 mL	2.7747 mL
50 mM	0.0555 mL	0.2775 mL	0.5549 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

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