

Product Name: Triptolide

Catalog No.: 3253

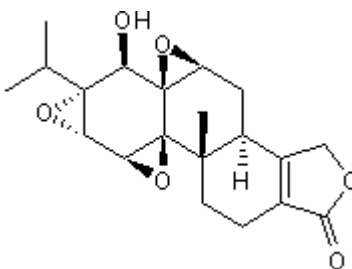
Batch No.: 3

CAS Number: 38748-32-2

IUPAC Name: (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)-3b,4,4a,6,6a,7a,7b,8b,9,10-Decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)trioxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₀H₂₄O₆
Batch Molecular Weight: 360.4
Physical Appearance: White solid
Solubility: DMSO to 20 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.4% purity
¹H NMR: Consistent with structure
Optical Rotation: [α]_D = -168 (Concentration = 0.148, Solvent = Methanol)
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	66.65	6.71	
Found	66.64	6.67	

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Inhibits DNA-dependent ATPase activity of XBP and induces inhibition of RNA polymerase II (RNAPII)-mediated transcription (IC₅₀ = 200 nM). Selective for RNAPII over RNAPI and RNAPIII. Blocks RNA synthesis in HeLa cells (IC₅₀ = 62 nM); exhibits potent antiproliferative activity in 60 cancer cell lines (average IC₅₀ = 12 nM) and induces apoptosis by blocking TNF- α -mediated c-IAP1 and c-IAP2 induction. Also displays immunosuppressive and anti-inflammatory activity.

Physical and Chemical Properties:

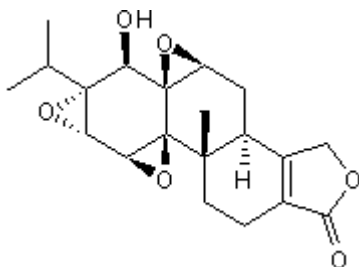
Batch Molecular Formula: C₂₀H₂₄O₆

Batch Molecular Weight: 360.4

Physical Appearance: White solid

Minimum Purity: >98%

Batch Molecular Structure:



References:

Qui et al (1999) Immunosuppressant PG490 (Triptolide) inhibits T-cell interleukin-2 expression at the level of purine-box/nuclear factor of activated T-cells and NF- κ B transcriptional activation. *J.Biol.Chem.* **274** 13443. PMID: 10224109.

Lee et al (1999) PG490 (Triptolide) cooperates with tumor necrosis factor- α to induce apoptosis in tumor cells. *J.Biol.Chem.* **274** 13451. PMID: 10224110.

Titov et al (2011) XBP, a subunit of TFIIH, is a target of the natural product triptolide. *Nat.Chem.Biol.* **7** 182. PMID: 21278739.

Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 20 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

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