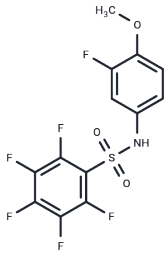
Data Sheet (Cat.No.T10460)

TargetMol

Batabulin

Chemical Properties



CAS No. : 195533-53-0

Formula: C13H7F6NO3S

Molecular Weight: 371.26

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Batabulin (T138067) is an antitumor compound that binds covalently and selectively to a subset of the β-tubulin isotypes, disrupting microtubule polymerization. This disruption affects cell morphology, induces cell-cycle arrest, and ultimately leads to apoptotic cell death.
Targets(IC50)	Apoptosis,Microtubule Associated
In vitro	In MCF7 cells, the treatment of Batabulin (T138067; 30-300 nM; 24 hours) shows approximately 25-30% tetraploid (4n) DNA content in cells and 25-30% apoptosis. After a 48-hr exposure to 100 nM Batabulin, approximately 50-80% of the cell population is undergoing apoptosis. Batabulin binds covalently and selectively to a subset of the β-tubulin isotypes, thereby disrupting microtubule polymerization. Covalent modification occurs at a conserved Cys-239 shared by the β1, β2, and β4 tubulin isotypes. Cells exposed to Batabulin become altered in shape.
In vivo	Batabulin (40 mg/kg; i.p.; once per week; on days 5, 12, and 19; male athymic nude mice) treatment impairs the growth of the drug-sensitive CCRF-CEM tumors.

Solubility Information

Solubility	DMSO: 100 mg/mL (269.35 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 4 mg/mL (10.77 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6935 mL	13.4677 mL	26.9353 mL
5 mM	0.5387 mL	2.6935 mL	5.3871 mL
10 mM	0.2694 mL	1.3468 mL	2.6935 mL
50 mM	0.0539 mL	0.2694 mL	0.5387 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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Shan B, et al. Selective, covalent modification of beta-tubulin residue Cys-239 by T138067, an antitumor agent with in vivo efficacy against multidrug-resistant tumors. Proc Natl Acad Sci U S A. 1999 May 11;96(10):5686-91.