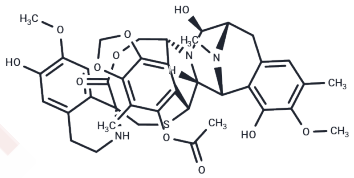
Data Sheet (Cat.No.T17155)

TargetMol

Trabectedin

Chemical Properties



CAS No. :	114899-77-3
Formula:	C39H43N3O11S
Molecular Weight:	761.84
Storage:	Powder: -20°C for 3 years Actual storage temperature shall be subject to the COA.

Biological Description

Description	Trabectedin (Ecteinascidin 743) has potent antitumor activity and the potential for soft tissue sarcoma and ovarian cancer research. Trabectedin inhibits cell growth of MX-1, MCF7 and MCF7/DXR cells with IC50 values of 0.1 nM, 1.5 nM and 3.7 nM, respectively.
Targets(IC50)	Apoptosis,Reactive Oxygen Species
In vitro	In MCF7 cells, Trabectedin (10 nM; 24-72 hours) results in cell accumulation in late S to G2 phase[1]. Trabectedin induces cytotoxicity and apoptosis in both breast cancer cells in a time and concentration-dependent manner. In MDA-MB-453 cells, the mitochondrial pathway related pro-apoptotic proteins Bax, Bad, Cytochrome c, Smac/DIABLO, and Cleaved Caspase-3 expressions are induced by 4.2-, 3.6-, 4.8-, 4.5-, and 4.4-fold, and the expression levels of anti-apoptotic proteins Bcl-2 and Bcl-XL are reduced by 4.8- and 5.2-fold. In MCF-7 cells, the expression levels of the death receptor pathway molecules, TRAIL-R1/DR4, TRAIL-R2/DR5, FAS/TNFRSF6, TNF RI/TNFRSF1A, and FADD are significantly increased by 2.6-, 3.1-, 1.7-, 11.2- and 4.0-fold by Trabectedin treatment[2]. Trabectedin selectively inhibits the production of CCL2, CXCL8, IL-6, VEGF, and PTX3 by myxoid liposarcoma (MLS) primary tumor cultures and/or cell lines[3].
In vivo	In female athymic nude mice, Trabectedin (30-50 μg/kg; intravenous injection; every three days) increased the antitumor effects in nude mice bearing MX-1 mammary carcinoma xenografts without increasing toxicity[1]. In a xenograft mouse model of human myxoid liposarcoma (MLS), Trabectedin reduced CCL2, CXCL8, CD68+ infiltrating macrophages, CD31+ tumor vessels, and partial decreased PTX3[3].

Solubility Information

Solubility	DMSO: 33.33 mg/mL (43.75 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.3126 mL	6.5631 mL	13.1261 mL
5 mM	0.2625 mL	1.3126 mL	2.6252 mL
10 mM	0.1313 mL	0.6563 mL	1.3126 mL
50 mM	0.0263 mL	0.1313 mL	0.2625 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.