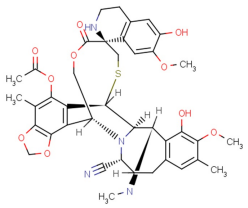
Data Sheet (Cat.No.T11150)

TargetMol
A DRUG SCREENING EXPERT

Ecteinascidin 770

Chemical Properties



CAS No.:	114899-80-8
Formula:	C40H42N4O10S
Molecular Weight:	770.85
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	Ecteinascidin 770 (ET-770) inhibits U373MG cells and is a 1,2,3, 4-tetrahydroisoquinoline alkaloid with strong anticancer activity.IC50 is 4.83 nM.
Targets(IC_{50})	U373MG cell: 4.83 nM
In vitro	ET-770 is shown to enhance anoikis response of human lung cancer H23 cells in a dose-dependent manner. Ecteinascidin 770 sensitizes the cells by activating the p53 protein, which in turn down-regulates anti-apoptotic myeloid cell leukemia sequence-1 (MCL1) and up-regulates BCL2-associated X protein (BAX) proteins. However, B-cell lymphoma-2 (BCL2) proteins are not significantly affected by Ecteinascidin 770. The anoikis sensitization of ET-770 is observed in H460 lung cancer cells.Ecteinascidin 770 induces apoptosis of U373MG cells. The IC50 concentration of ecteinascidin 770 for killing U373MG glioblastoma cells in culture by using the MTT assay is 4.83 nM by a 72 hour-treatment. The IC50 values against human cell lines HCT116, QG56, and DU145 are 0.6, 2.4, and 0.81 nM, respectively.

Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.297 mL	6.486 mL	12.973 mL
5 mM	0.259 mL	1.297 mL	2.595 mL
10 mM	0.13 mL	0.649 mL	1.297 mL
50 mM	0.026 mL	0.13 mL	0.259 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Tabunoki H, et al. Molecular network profiling of U373MG human glioblastoma cells following induction of apoptosis by novel marine-derived anti-cancer 1,2,3,4-tetrahydroisoquinoline alkaloids. Cancer Cell Int. 2012 Apr 11;12(1):14.

2. Saktrakulkla P, et al. Chemistry of ecteinascidins. Part 3: preparation of 2'-N-acyl derivatives of ecteinascidin 770 and evaluation of cytotoxicity. Bioorg Med Chem. 2011 Aug 1;19(15):4421-36.

3. Powan P, et al. Ecteinascidin 770, a tetrahydroisoquinoline alkaloid, sensitizes human lung cancer cells to anoikis. Anticancer Res. 2013 Feb;33(2):505-12.

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