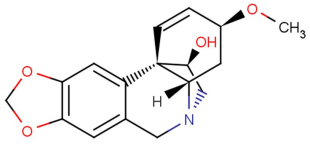
Data Sheet (Cat.No.T11534)

TargetMol
A DRUG SCREENING EXPERT

Haemanthamine

Chemical Properties



CAS No.:	466-75-1
Formula:	C17H19NO4
Molecular Weight:	301.34
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	Haemanthamine is an alkaloid isolated from the Amaryllidaceae plants with potent anticancer activity. It inhibits protein biosynthesis during the elongation stage of translation. It has antimalarial, pro-apoptotic, antiviral, antioxidant, and anticonvulsant activities.
Targets(IC_{50})	Others: None
In vitro	Haemanthamine (10 μM; 24-72 hours; A2780 cells) treatment leads to significant inhibition of A2780 cell proliferation. Haemanthamine (1-100 μM; 24-48 hours; A2780 cells) treatment shows a time- and dose-dependent decrease in cell viability [2].
In vivo	A pharmacokinetic study of Haemanthamine in rats shows a rapid distribution phase of 30 min, a half-life of 70.4 min, and a major clearance through renal elimination. The high distribution volume of 13.7 L/kg suggests a high intracellular penetration, and its plasmatic concentration remains higher than 1 μM for at least 1 hr after a single 10-mg/kg administration [1].

Solubility Information

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

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.319 mL	16.593 mL	33.185 mL
5 mM	0.664 mL	3.319 mL	6.637 mL
10 mM	0.332 mL	1.659 mL	3.319 mL
50 mM	0.066 mL	0.332 mL	0.664 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. Pellegrino S, et al. The Amaryllidaceae Alkaloid Haemanthamine Binds the Eukaryotic Ribosome to Repress Cancer Cell Growth. Structure. 2018 Mar 6;26(3):416-425.e4.

2. Seifrtová M, et al. Haemanthamine alters sodium butyrate-induced histone acetylation, p21WAF1/Cip1 expression, Chk1 and Chk2 activation and leads to increased growth inhibition and death in A2780 ovarian cancer cells. Phytomedicine. 2017 Nov 15;35:1-10.

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Tel:781-999-4286 E-mail:info@targetmol.com Address:36 Washington Street,Wellesley Hills,MA 02481