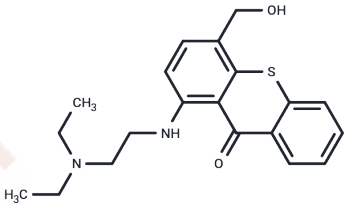
Data Sheet (Cat.No.T15507)

TargetMol

Hycanthone

Chemical Properties



CAS No. : 3105-97-3

Formula: C20H24N2O2S

Molecular Weight: 356.48

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	Hycanthone (Etrenol(mesylate)) is a potent drug of antischistosomal. Hycanthone is a DNA intercalator that inhibits RNA synthesis and DNA topoisomerases I and II. Hycanthone inhibits nucleic acid biosynthesis and inhibits APE1 via direct protein binding(KD: 10 nM).
Targets(IC50)	Parasite,DNA/RNA Synthesis,Topoisomerase
In vitro	Hycanthone at 20 mg/mL or more is progressively more detrimental to cell viability. Compared to that of controls, results show that increased concentrations of Hycanthone, ranging from 0.1 to 10 μg/mL, progressively decreases viral interferon yields as much as 73% [2].
In vivo	Male worms treated with Hycanthone display signs of possible partial recovery from the initial low levels of incorporation. After treatment with Hycanthone, the incorporation of tritiated thymidine into TCA-precipitable material of adult sensitive worms undergo a progressive decrease. Immature worms are totally unaffected by Hycanthone at all times tested. In the first four days after treatment, incorporation of tritiated leucine by drug-sensitive worms treated with Hycanthone is inhibited by 40 to 50%. 7 days after Hycanthone treatment, both ribosomal RNA species are reduced by at least 80% with respect to untreated worms, with some indication of a possible accumulation of heavier precursor molecules [1].

Solubility Information

Solubility	H2O: < 0.1 mg/mL (insoluble) DMSO: 18 mg/mL (50.49 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: 1 mg/mL (2.81 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	2.8052 mL	14.026 mL	28.0521 mL
5 mM	0.561 mL	2.8052 mL	5.6104 mL
10 mM	0.2805 mL	1.4026 mL	2.8052 mL
50 mM	0.0561 mL	0.2805 mL	0.561 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

Pica Mattoccia L, et al. Effect of hycanthone administered in vivo upon the incorporation of radioactive precursors into macromolecules of Schistosoma mansoni. Mol Biochem Parasitol. 1983 Jun;8(2):99-107.
Hahon N, et al. Action of antischistosomal drugs, hycanthone and its analog 1A-4 N-oxide, on viral interferon induction. J Toxicol Environ Health. 1980 Jul;6(4):705-12.