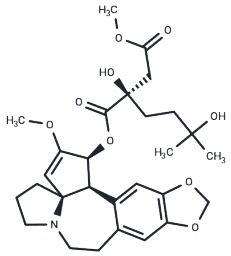
Data Sheet (Cat.No.T8286)

TargetMol

Harringtonine

Chemical Properties



CAS No. : 26833-85-2

Formula: C28H37NO9

Molecular Weight: 531.59

Storage: Keep away from direct sunlight,Store under nitrogen,
Keep away from moisture
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	Harringtonine is a naturally occurring alkaloid that inhibits DNA synthesis and protein synthesis and strongly kills S-phase cells. Harringtonine has antitumor and antiviral activities.
Targets(IC50)	Influenza Virus
In vitro	Harringtonine inhibits the elongation phase of translation by preventing substrate binding to the acceptor site on the 60-S ribosome subunit, blocking aminoacyl-tRNA binding and peptide bond formation [1]. It displays potent inhibition of Chikungunya virus infection (EC50: 0.24 μM) and could inhibit other alphaviruses [2]. Additionally, Harringtonine inhibits the growth of human myeloid leukemia cells in vitro at low concentrations [3].
In vivo	**METHODS**: To study in vivo activity, Harringtonine (0.5-4 mg/mouse) was injected retroorbital into C57BL/6 mice. **RESULTS**: Within 5 min, Harringtonine completely depleted multimers in all organs except testis and brain, and it took up to 30 min to significantly reduce the number of multimers due to the blood-brain and blood-testis barriers. [3]

Solubility Information

Solubility	DMSO: 55 mg/mL (103.46 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: 2 mg/mL (3.76 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	1.8811 mL	9.4057 mL	18.8115 mL
5 mM	0.3762 mL	1.8811 mL	3.7623 mL
10 mM	0.1881 mL	0.9406 mL	1.8811 mL
50 mM	0.0376 mL	0.1881 mL	0.3762 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

Franco DP, et al. Apoptotic and cell cycle response to homoharringtonine and harringtonine in wild and mutant p53 hepatocarcinoma cells. Hum Exp Toxicol. 2020 Oct;39(10):1405-1416.
Lai ZZ, et al. Harringtonine Inhibits Zika Virus Infection through Multiple Mechanisms. Molecules. 2020 Sep 7;25 (18):4082.
Gerashchenko MV, et al. Translation elongation rate varies among organs and decreases with age. Nucleic Acids Res. 2021 Jan 25;49(2):e9.