

Product Name: Homoharringtonine

Catalog No.: 1416

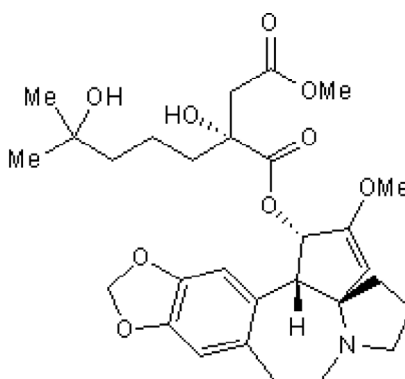
Batch No.: 3

CAS Number: 26833-87-4

IUPAC Name: Cephalotaxine 4-methyl (2*R*)-2-hydroxy-2-(4-hydroxy-4-methylpentyl)butanedioate

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₉H₃₉NO₉.
Batch Molecular Weight: 545.63
Physical Appearance: Off White solid
Solubility: DMSO to 100 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98.0% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	63.84	7.2	2.57
Found	63	7	2.51

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Homoharringtonine is an inhibitor of protein synthesis. Blocks elongation phase of translation by binding to the 60-S ribosome subunit. Antileukemic. Inhibits SARS-CoV-2 infection in vitro ($IC_{50} = 2.55 \mu M$).

Physical and Chemical Properties:

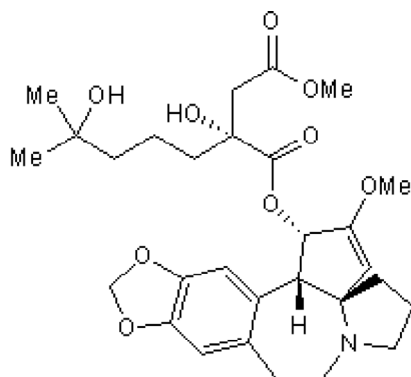
Batch Molecular Formula: $C_{29}H_{39}NO_9$.

Batch Molecular Weight: 545.63

Physical Appearance: Off White solid

Minimum Purity: $\geq 98\%$

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

DMSO to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Choy et al (2020) Remdesivir, lopinavir, emetine, and homoharringtonine inhibit SARS-CoV-2 replication *in vitro*. *Antiviral Res.* **178**. PMID: 32251767.

Cai et al (2001) Apoptotic response to homoharringtonine in human wt p53 leukemic cells is independent of reactive oxygen species generation and implicates Bax translocation, mitochondrial cytochrome c release and caspase activation. *Leukemia* **15** 567. PMID: 11368358.

Zhou et al (1995) Homoharringtonine: an effective new natural product in cancer chemotherapy. *Bull.Cancer* **82** 987. PMID: 8745664.

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