

# Certificate of Analysis

www.tocris.com

**Product Name:** Homoharringtonine

**Catalog No.:** 1416

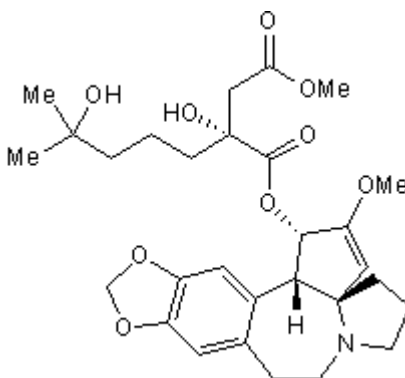
**Batch No.:** 2

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:** C<sub>29</sub>H<sub>39</sub>NO<sub>9</sub>  
**Batch Molecular Weight:** 545.63  
**Physical Appearance:** White solid  
**Solubility:** DMSO to 100 mM  
ethanol to 50 mM  
**Storage:** Store at RT  
**Batch Molecular Structure:**



## 2. ANALYTICAL DATA

**HPLC:** Shows 98.2% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	63.84	7.2	2.57
Found	63.54	7.2	2.69

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

**Product Name:** Homoharringtonine

**Catalog No.:** 1416

**Batch No.:** 2

CAS Number: 26833-87-4

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

**Description:**

Inhibitor of protein synthesis. Blocks elongation phase of translation by binding to the 60-S ribosome subunit. Antileukemic.

**Physical and Chemical Properties:**

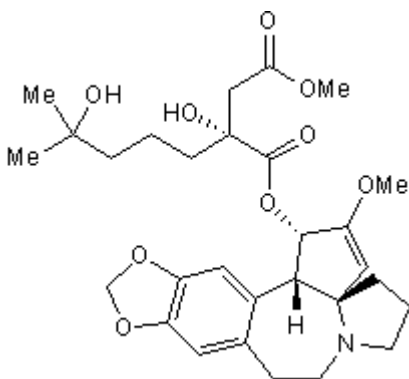
Batch Molecular Formula: C<sub>29</sub>H<sub>39</sub>NO<sub>9</sub>

Batch Molecular Weight: 545.63

Physical Appearance: White solid

**Minimum Purity:** >99%

**Batch Molecular Structure:**



**Storage:** Store at RT

**Solubility & Usage Info:**

DMSO to 100 mM

ethanol to 50 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. Our standard recommendations are:

**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:**

**Fresno *et al*** (1977) Inhibition of translation in eukaryotic systems by harringtonine. *Eur.J.Biochem.* **72** 323. PMID: 319998.

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

**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.

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

**bio-techne.com**

info@bio-techne.com

techsupport@bio-techne.com

**North America**

Tel: (800) 343 7475

**China**

info.cn@bio-techne.com

Tel: +86 (21) 52380373

**Europe Middle East Africa**

Tel: +44 (0)1235 529449

**Rest of World**

www.tocris.com/distributors

Tel:+1 612 379 2956