Homoharringtonine (HHT)

Catalog No.C13866 Batch:C1386603

Product Datasheet

Technical Data

Formula	$C_{29}H_{39}NO_9$					
Molecular Weight	545.62	**CAS No.**	26833-87-4			
Solubility (25°C)*	In vitro	DMSO	100 mg/mL (183.27 mM)			
		Ethanol	25 mg/mL (45.81 mM)			
		Water	Insoluble			
	In vivo (Add solvents to the product individually and in order)	Oral Administration	Homogeneous suspension	CMC-NA	≥5mg/ml	Taking the 1 mL working solution as an example, add 5 mg of this product to 1 ml of CMC-Na solution, mix evenly to obtain a homogeneous suspension with a final concentration of 5 mg/ml.

* <1 mg/ml means slightly soluble or insoluble.
* Please note that Capsid Bio tests the solubility of all compounds in-house, and the actual solubility may differ slightly from published values. This is normal and is due to slight batch-to-batch variations.
* Room temperature shipping (Stability testing shows this product can be shipped at 2-8°C for storage purposes.)

Preparing Stock Solutions

Concentration \ Volume / Mass	1 mg	5 mg	10 mg
1 mM	1.8328 mL	9.1639 mL	18.3278 mL
5 mM	0.3666 mL	1.8328 mL	3.6656 mL
10 mM	0.1833 mL	0.9164 mL	1.8328 mL
50 mM	0.0367 mL	0.1833 mL	0.3666 mL

Biological Activity

Description	Homoharringtonine (HHT), a plant alkaloid with antitumor properties, inhibits **protein translation** by preventing the initial elongation step of protein synthesis via an interaction with the ribosomal A-site. Homoharringtonine reversiblely inhibits IL-6-induced **STAT3** Tyrosine 705 phosphorylation and reduced anti-apoptotic proteins expression.
In vitro	Homoharringtonine (HHT), a plant alkaloid with antitumor properties, induces p62-mediated autophagy in resistant CML K562G cells, thus promoting autophagic degradation of the BCR-ABL protein.[1]
In vivo	In combination with ABT-199, Homoharringtonine (HHT) significantly prolongs overall survival of primary diffuse large B-cell lymphoma (DLBCL) xenograft-bearing mice compared with single-agent approaches.[2]

Protocol (from reference)

Cell Assay:[1]

- **Cell lines**
  K562 cells, K562G cells
- **Concentrations**
  100, 50, 25, 12.5, 6.2, 3.1, 1.56, 0.78 and 0.39 ng/ml
- **Incubation Time**
  48 h
- **Method**
  Homoharringtonine (HHT) is used to treat K562, K562G, and siRNA-K562G cells seeded in 384-well plates at a density of 8,000 cells/well, at concentrations of 100, 50, 25, 12.5, 6.2, 3.1, 1.56, 0.78 and 0.39 ng/ml for 48 h, with 0.1% DMSO as the vehicle control. According to the manufacturer's instructions, cell proliferation is assayed using an MTS assay, and the absorbance is measured.

Animal Study:[2]

- **Animal Models**
  Cg-Prkdc^{scid} Il2rg^{tm1Wjl}/SzJ mice of xenograft models of DLBCL
- **Dosages**
  50 μg/dose
- **Administration**
  i.p.

References

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6908937/ https://pubmed.ncbi.nlm.nih.gov/26467384/

RETURN POLICY

Capsid Bio's Unconditional Return Policy ensures a smooth online shopping experience for our customers. If you are in any way unsatisfied with your purchase, you may return any item(s) within 7 days of receiving it. In the event of product quality issues, either protocol related or product related problems, you may return any item(s) within 365 days from the original purchase date. Please follow the instructions below when returning products.

SHIPPING & STORAGE

Capsid Bio products are transported at room temperature. If you receive the product at room temperature, please rest assured, the Capsid Bio Quality Inspection Department has conducted experiments to verify that the normal temperature placement of one month will not affect the biological activity of powder products. After collecting, please store the product according to the requirements described in the datasheet. Most Capsid Bio products are stable under the recommended conditions.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

EU Headquarters
Gajeva ulica 28, HR-10000 Zagreb, Croatia

US Headquarters
12222 Merit Dr STE 130 Dallas, Texas, 75251

UK Headquarters
121 ABILITY HOUSE, BROOKER ROAD, EN9 1JH, ESSEX

Orders: Sales@capsidbio.com
Enquiries: info@capsidbio.com
www.capsidbio.com