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Produktinformation

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See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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Tetrahydropiperine

Cat. No.: HY-N4205

CAS No.: 23434-88-0

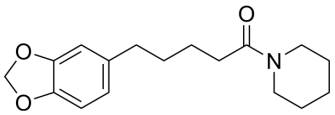
Molecular Formula: $C_{17}H_{23}NO_3$

Molecular Weight: 289.37

Target: Cytochrome P450

Pathway: Metabolic Enzyme/Protease

Storage: 4°C, protect from light
* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (345.58 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.4558 mL	17.2789 mL	34.5578 mL
	5 mM	0.6912 mL	3.4558 mL	6.9116 mL
	10 mM	0.3456 mL	1.7279 mL	3.4558 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (8.64 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (8.64 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Tetrahydropiperine, a cyclohexyl analogue of piperine, is the first natural aryl pentanamide from Piper longum[1]. Tetrahydropiperine (compound 14) inhibits the cytochrome P450 (CYP) isoform CYP1A1/arylhydrocarbon hydroxylase (AHH; IC_{50}=23 μM)[2].

IC_{50} & Target

CYP1A1
23 μM (IC_{50})

REFERENCES

[1]. Madhusudhan P, et al. Tetrahydropiperine, the first natural aryl pentanamide from Piper longum. Biochem Syst Ecol. 2001 May;29(5):537-538.

[2]. Koul S, et al. Structure-activity relationship of piperine and its synthetic analogues for
their inhibitory potentials of rat hepatic microsomal constitutive and inducible cytochromeP450 activities. Bioorg Med Chem. 2000 Jan;8(1):251-68.

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