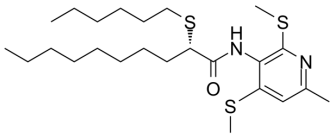
CP-113818

Cat. No.:	HY-105445
CAS No.:	135025-12-6
Molecular Formula:	$C_{24}H_{42}N_2OS_3$
Molecular Weight:	470.8
Target:	Acyltransferase
Pathway:	Metabolic Enzyme/Protease
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (212.40 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.1240 mL	10.6202 mL	21.2404 mL
	5 mM	0.4248 mL	2.1240 mL	4.2481 mL
	10 mM	0.2124 mL	1.0620 mL	2.1240 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: 5 mg/mL (10.62 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

CP-113818 is a potent cholesterol acyltransferase (ACAT) inhibitor. CP-113818 can be used for the research of Alzheimer's disease[1].

In Vitro

CP-113818 inhibits Aβ production in cell-based experiments[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

CP-113818 (0-7.1 mg/kg/day) markedly reduces amyloid pathology in a mouse model of Alzheimer's disease[1].

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Animal Model:	C57BL/6, hAPP (human amyloid precursor protein) transgenic mice[1]

Dosage:	0, 0.2, 1.6, 3.2, 4.8, and 7.1 mg/kg/day
Administration:	Via implantable slow-release biopolymer pellets, 21 days for nontransgenic mice or 60 days for hAPP mice
Result:	Reduced total cholesterol levels by 29% in the serum, hepatic free cholesterol and cholesteryl-esters were also decreased in a dose-dependent manner by up to 37% and 93%, respectively in the nontransgenic mice. Effectively reduced cholesteryl-ester levels of hAPP mice in the absence of adrenal toxicity, reduced plaque numbers, and decreased amyloid load in a gender-independent manner in hAPP mice. Reduced levels of “insoluble” and soluble $A\beta_{1-40}$ and $A\beta_{1-42}$ in the brains of hAPP transgenic mice. Restored normal spatial learning and memory in female hAPP mice in a morris water maze test. Reduced processing of endogenous APP but not notch or N-cadherin, without directly inhibiting β- and γ-secretase activities or Aβ aggregation in nontransgenic littermates.

CUSTOMER VALIDATION

- Cancer Sci. 2023 Oct 25.

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REFERENCES

[1]. Hutter-Paier B, et al. The ACAT inhibitor CP-113,818 markedly reduces amyloid pathology in a mouse model of Alzheimer's disease. Neuron. 2004 Oct 14;44(2):227-38.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA