RP 70676

Cat. No.: HY-101576

CAS No.: 136609-26-2

Molecular Formula: $C_{25}H_{28}N_4S$

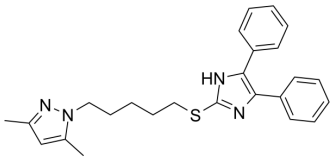
Molecular Weight: 416.58

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 : 125 mg/mL (300.06 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.4005 mL	12.0025 mL	24.0050 mL
	5 mM	0.4801 mL	2.4005 mL	4.8010 mL
	10 mM	0.2400 mL	1.2002 mL	2.4005 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.08 mg/mL (4.99 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 2.08 mg/mL (4.99 mM); Suspended solution; Need ultrasonic
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (4.99 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

RP 70676 is a potent inhibitor of ACAT, with IC_{50} of 25 and 44 nM for rat and rabbit ACAT.

IC_{50} & Target

IC50: 25 nM (Rat ACAT), 44 nM (Rabbit ACAT)[1]

In Vitro

RP 70676 is a potent inhibitor of rabbit arterial ACAT (IC_{50} = 40 nM) and has been shown to be an effective inhibitor of ACAT derived from a number of tissues and species including man. The IC_{50} values range from 21 nM for hamster liver ACAT to 108 nM for enzyme from the intestine of cholesterol fed rabbits; in human hepatic tissues the mean IC_{50} is 44 nM. In whole cell

	P388D, murine macrophages the compound has an IC_{50} of 540 nM. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	RP 70676 (10 mg/kg, p.o.) is well absorbed with plasma levels in NZW rabbits[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. M.J. Ashton, et al. RP 70676: A potent systematically available inhibitor of acyl-CoA:cholesterol O-acyl transferase (ACAT). Bioorganic & Medicinal Chemistry Letters Volume 2, Issue 5, 1992, Pages 375-380.

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