Cinchonidine

Cat. No.: HY-N0173

CAS No.: 485-71-2

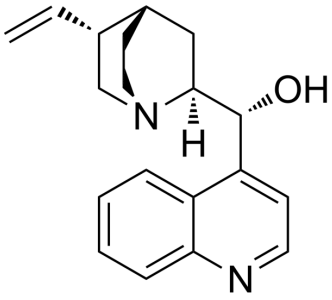
Molecular Formula: $C_{19}H_{22}N_2O$

Molecular Weight: 294.39

Target: Serotonin Transporter; Parasite

Pathway: Neuronal Signaling; Anti-infection

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



SOLVENT & SOLUBILITY

In Vitro

DMSO : 33.33 mg/mL (113.22 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	3.3969 mL	16.9843 mL	33.9685 mL
	5 mM	0.6794 mL	3.3969 mL	6.7937 mL
	10 mM	0.3397 mL	1.6984 mL	3.3969 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: ≥ 2.5 mg/mL (8.49 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (8.49 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (8.49 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Cinchonidine (α-Quinidine) is a cinchona alkaloid found in Cinchona officinalis and Gongronema latifolium. A building block used in asymmetric synthesis in organic chemistry. Weak inhibitor of serotonin transporter (SERT) with K_is of 330, 4.2, 36, 196, 15 μM for dSERT, hSERT, hSERT I172M, hSERT S438T, hSERT Y95F, respectively. Antimalarial activities[1].

IC_{50} & Target

Plasmodium

In Vitro

Cinchonidine (α-Quinidine) is a cinchona alkaloid found in Cinchona officinalis and Gongronema latifolium. A building block used in asymmetric synthesis in organic chemistry. Weak inhibitor of serotonin transporter (SERT) with K_is of 330, 4.2, 36,

196, 15 μM for dSERT, hSERT, hSERT I172M, hSERT S438T, hSERT Y95F, respectively[1].

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

REFERENCES

[1]. Beckman ML, et al. Stereoselective inhibition of serotonin transporters by antimalarial compounds. Neurochem Int. 2014 Jul;73:98-106.

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