10,11-Dihydrocarbamazepine

Cat. No.: HY-B2124

CAS No.: 3564-73-6

Molecular Formula: $C_{15}H_{14}N_2O$

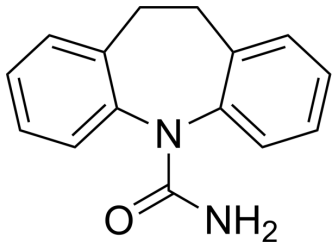
Molecular Weight: 238.28

Target: Drug Metabolite

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 (419.67 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	4.1967 mL	20.9837 mL	41.9674 mL
	5 mM	0.8393 mL	4.1967 mL	8.3935 mL
	10 mM	0.4197 mL	2.0984 mL	4.1967 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 (10.49 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (10.49 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (10.49 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

10,11-Dihydrocarbamazepine is the active metabolite of Oxcarbazepine. 10,11-Dihydrocarbamazepine also is an intermediate. Oxcarbazepine is rapidly and almost completely converted to 10,11-Dihydrocarbamazepine with probable Anticonvulsant efficacy[1].

In Vitro

Oxcarbazepine is metabolized in the liver to its active metabolite, 10,11-Dihydrocarbamazepine. Oxcarbazepine is an antiepileptic drug (AED) used to treat partial seizures as a monotherapy or adjunctive therapy[1].
10,11-Dihydrocarbamazepine may be used as a reference standard for the determination of 10,11-dihydrocarbamazepine in

	pharmaceutical formulations by liquid chromatography (LC)[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Courtney Hunek, et al. Measurement of 10,11-dihydro-10-hydroxy-carbamazepine in serum and plasma by high-performance liquid chromatography. Clin Chem Lab Med. 2008;46(10):1429-33.

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