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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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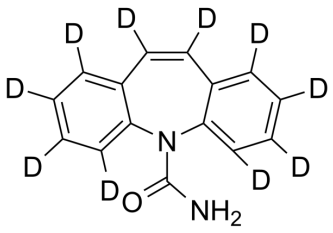
Carbamazepine-d_{10}

Cat. No.:	HY-B0246S
CAS No.:	132183-78-9
Molecular Formula:	$C_{15}H_2D_{10}N_2O$
Molecular Weight:	246.33
Target:	Sodium Channel; Autophagy; Mitophagy
Pathway:	Membrane Transporter/Ion Channel; Autophagy
Storage:	Powder -20°C 3 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMF : ≥ 25 mg/mL (101.49 mM)
DMSO : ≥ 25 mg/mL (101.49 mM)
DMSO : ≥ 25 mg/mL (101.49 mM)
DMF : ≥ 25 mg/mL (101.49 mM)
Ethanol : ≥ 3 mg/mL (12.18 mM)
Ethanol : ≥ 3 mg/mL (12.18 mM)
DMSO:PBS (pH 7.2) (1:1) : ≥ 0.5 mg/mL (2.03 mM)
* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Concentration \ Solvent \ Mass	1 mg	5 mg	10 mg
1 mM	4.0596 mL	20.2980 mL	40.5959 mL
5 mM	0.8119 mL	4.0596 mL	8.1192 mL
10 mM	0.4060 mL	2.0298 mL	4.0596 mL

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

BIOLOGICAL ACTIVITY

Description

Carbamazepine-d_{10} is the deuterium labeled Carbamazepine. Carbamazepine (CBZ), a sodium channel blocker, is an anticonvulsant agent[1][2].

In Vitro

Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-216.

[2]. Willow, M. and W.A. Catterall, Inhibition of binding of [3H]batrachotoxinin A 20-alpha-benzoate to sodium channels by the anticonvulsant drugs diphenylhydantoin and carbamazepine. Mol Pharmacol, 1982. 22(3): p. 627-35.

[3]. Okada, M., et al., Biphasic effects of carbamazepine on the dopaminergic system in rat striatum and hippocampus. Epilepsy Res, 1997. 28(2): p. 143-53.

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