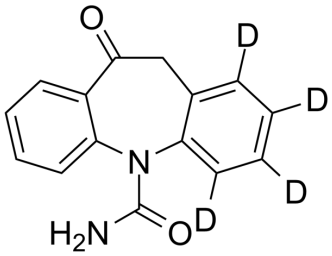
Oxcarbazepine-D4

Cat. No.:	HY-B0114S
CAS No.:	1020719-71-4
Molecular Formula:	$C_{15}H_8D_4N_2O_2$
Molecular Weight:	256.29
Target:	Sodium Channel; Apoptosis
Pathway:	Membrane Transporter/Ion Channel; Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Oxcarbazepine-D4 (GP 47680-D4) is the deuterium labeled Oxcarbazepine. Oxcarbazepine is a sodium channel blocker[1]. Oxcarbazepine significantly inhibits glioblastoma cell growth and induces apoptosis or G2/M arrest in glioblastoma cell lines [2]. Anti-cancer and anticonvulsant effects[2][3].
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]. Ashley M Thomas, et al. Old Friends With New Faces: Are Sodium Channel Blockers the Future of Adjunct Pain Medication Management?J Pain. 2018 Jan;19(1):1-9.

[3]. Ching-Yi Lee,et al. The effects of antiepileptic drugs on the growth of glioblastoma cell lines. J Neurooncol. 2016 May;127(3):445-53.

[4]. M Schmutz, et al. Oxcarbazepine: preclinical anticonvulsant profile and putative mechanisms of action. Epilepsia. 1994;35 Suppl 5:S47-50.

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