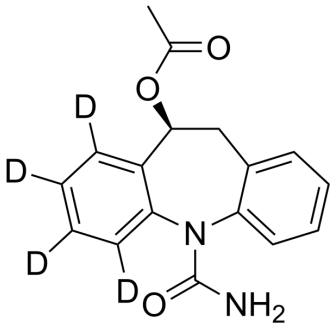
Eslicarbazepine acetate-d4

Cat. No.:	HY-B0703S
Molecular Formula:	$C_{17}H_{12}D_4N_2O_3$
Molecular Weight:	300.35
Target:	Beta-secretase; Sodium Channel; Isotope-Labeled Compounds
Pathway:	Neuronal Signaling; Membrane Transporter/Ion Channel; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Eslicarbazepine acetate-d_4 is deuterated labeled Eslicarbazepine acetate (HY-B0703). Eslicarbazepine acetate (BIA 2-093), an antiepileptic agent, is a dual a dual Inhibitor of β-Secretase and voltage-gated sodium channel.
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.
In Vivo	Eslicarbazepine acetate is an antiepileptic drug. It is a prodrug which is activated to eslicarbazepine (S-licarbazepine), an active metabolite of oxcarbazepine. Eslicarbazepine acetate is a prodrug for (S)-(+)-licarbazepine, the major active metabolite of oxcarbazepine. Its mechanism of action is therefore identical to that of oxcarbazepine. Eslicarbazepine acetate may not produce as high peak levels of (S)-(+)-licarbazepine immediately after dosing as does oxcarbazepine which could theoretically improve tolerability[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Sibhghatulla Shaikh, et al. Aptiom (Eslicarbazepine Acetate) as a Dual Inhibitor of β-Secretase and Voltage-Gated Sodium Channel: Advancement in Alzheimer's Disease-Epilepsy Linkage via an Enzoinformatics Study. CNS & Neurological Disorders Drug Targets Volume 13 , Issue 7 , 2014.

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

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