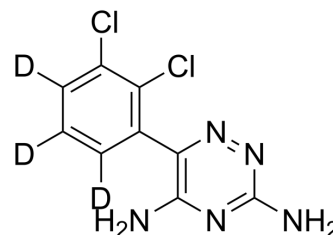


Lamotrigine-d₃

Cat. No.:	HY-B0495S5		
CAS No.:	1132746-94-1		
Molecular Formula:	C ₉ H ₄ D ₃ Cl ₂ N ₅		
Molecular Weight:	259.11		
Target:	Autophagy; Sodium Channel		
Pathway:	Autophagy; Membrane Transporter/Ion Channel		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



BIOLOGICAL ACTIVITY

Description

Lamotrigine-d₃ is the deuterium labeled Lamotrigine[1]. Lamotrigine (BW430C) is a potent and orally active anticonvulsant or antiepileptic agent. Lamotrigine selectively blocks voltage-gated Na⁺ channels, stabilizing presynaptic neuronal membranes and inhibiting glutamate release. Lamotrigine can be used for the research of epilepsy, focal seizure, et al[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 Feb;53(2):211-216.
- [2]. M J Leach, et al. Pharmacological studies on lamotrigine, a novel potential antiepileptic drug: II. Neurochemical studies on the mechanism of action. *Epilepsia*. Sep-Oct 1986;27(5):490-7.
- [3]. Damianka P Getova, et al. A study of the effects of lamotrigine on mice using two convulsive tests. *Folia Med (Plovdiv)*. Apr-Jun 2011;53(2):57-62.

Caution: Product has not been fully validated for medical applications. For research use only.

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