
Product Data Sheet

Product Name: Lamotrigine-13C3,d3

Cat. No.: GC64113

Chemical Properties

Cas. No. 1246815-13-3

Formula C613C3H4D3Cl2N5

M.Wt

262.09

Solubility

Storage

Store at -20°C

General tips

For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure

Background

Lamotrigine-13C3,d3 (LTG-13C3,d3) is the 13C-labeled Lamotrigine. 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[1][2].

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].

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019;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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