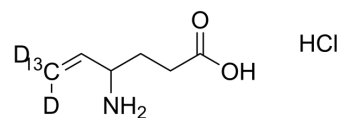


Vigabatrin-¹³C,₂D hydrochloride

Cat. No.:	HY-B0033S
Molecular Formula:	C ₅ ¹³ CH ₁₀ D ₂ ClNO ₂
Molecular Weight:	168.62
Target:	GABA Receptor; Isotope-Labeled Compounds
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Vigabatrin- ¹³ C, ₂ D (hydrochloride) is the ¹³ C- and deuterium labeled Vigabatrin (hydrochloride). Vigabatrin hydrochloride (γ-Vinyl-GABA hydrochloride), an inhibitory neurotransmitter GABA vinyl-derivative, is an orally active and irreversible GABA transaminase inhibitor. Vigabatrin hydrochloride is an antiepileptic agent, which acts by increasing GABA levels in the brain by inhibiting the catabolism of GABA by GABA transaminase[1][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 ^[49] . 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):211-223.
- [2]. Broeer, et al. Vigabatrin for focal drug delivery in epilepsy: Bilateral microinfusion into the subthalamic nucleus is more effective than intranigral or systemic administration in a rat seizure model. *Neurobiology of Disease* (2012), 46(2), 362-376.
- [3]. Gaily, Eija Vigabatrin monotherapy for infantile spasms. *Expert Review of Neurotherapeutics* (2012), 12(3), 275-286.
- [4]. Jakob Plum, et al. The anti-epileptic drug substance vigabatrin inhibits taurine transport in intestinal and renal cell culture models. *Int J Pharm.* 2014 Oct 1;473(1-2):395-7.

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

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