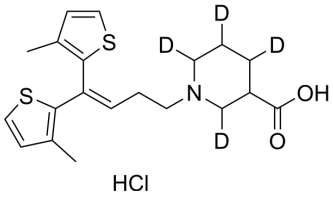
Tiagabine-d_4 hydrochloride

Cat. No.:	HY-B0696AS
Molecular Formula:	$C_{20}H_{22}D_4ClNO_2S_2$
Molecular Weight:	416.03
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	Tiagabine-d_4 hydrochloride is deuterated labeled Tiagabine hydrochloride (HY-B0696A). Tiagabine hydrochloride is a potent and selective GABA reuptake inhibitor, used as an anticonvulsant agent, with IC_{50}s of 67, 446 and 182 nM for [^{3}H]GABA uptake in Synaptosomes, Neurons and Glia, respectively[1].
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]. Braestrup C, et al. (R)-N-[4,4-bis(3-methyl-2-thienyl)but-3-en-1-yl]nipecotic acid binds with high affinity to the brain gamma-aminobutyric acid uptake carrier. J Neurochem. 1990 Feb;54(2):639-47.

[2]. Sheehan, D.V., et al., An open-label study of tiagabine in panic disorder. Psychopharmacol Bull, 2007. 40(3): p. 32-40.

[3]. Henjum, S. and B. Hassel, High-affinity GABA uptake and GABA-metabolizing enzymes in pig forebrain white matter: a quantitative study. Neurochem Int, 2007. 50(2): p. 365-70.

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

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA