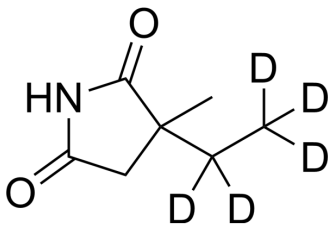
Ethosuximide-d_5

Cat. No.:	HY-B1378S1
CAS No.:	1989660-59-4
Molecular Formula:	$C_7H_6D_5NO_2$
Molecular Weight:	146.2
Target:	Calcium Channel; 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	Ethosuximide-d_5 is deuterium labeled Ethosuximide. Ethosuximide, a widely prescribed anti-epileptic agent, improves the phenotypes of multiple neurodegenerative disease models and blocks the low voltage activated T-type calcium 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.

REFERENCES

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

[2]. Chen X, et al. Ethosuximide ameliorates neurodegenerative disease phenotypes by modulating DAF-16/FOXO target gene expression. Mol Neurodegener. 2015 Sep 29;10:51.

[3]. Sondossi K, et al. Analysis of the antiepileptic, ethosuximide impacts on neurogenesis of rat forebrain stem cells. Fundam Clin Pharmacol. 2014 Oct;28(5):512-8.

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

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