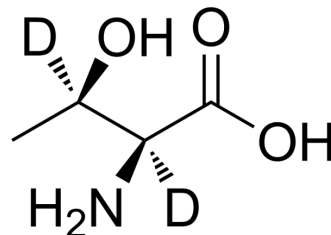


L-Threonine-d₂

Cat. No.:	HY-N0658S5
CAS No.:	1202936-45-5
Molecular Formula:	C ₄ H ₇ D ₂ NO ₃
Molecular Weight:	121.13
Target:	Endogenous Metabolite; Isotope-Labeled Compounds
Pathway:	Metabolic Enzyme/Protease; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	L-Threonine-d ₂ is the deuterium labeled L-Threonine. L-Threonine is a natural amino acid, can be produced by microbial fermentation, and is used in food, medicine, or feed[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]. Zhao H, et al. Increasing L-threonine production in Escherichia coli by engineering the glyoxylate shunt and the L-threonine biosynthesis pathway. Appl Microbiol Biotechnol. 2018 Jul;102(13):5505-5518.
- [2]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-216.

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

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