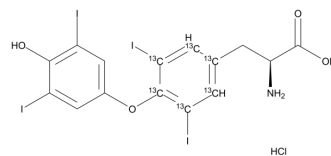


Thyroxine hydrochloride-¹³C₆

Cat. No.:	HY-18341S1
CAS No.:	1421769-38-1
Molecular Formula:	C ₉ ¹³ C ₆ H ₁₂ Cl ₄ NO ₄
Molecular Weight:	819.29
Target:	Thyroid Hormone Receptor; Endogenous Metabolite; Isotope-Labeled Compounds
Pathway:	Vitamin D Related/Nuclear Receptor; Metabolic Enzyme/Protease; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Thyroxine hydrochloride- ¹³ C ₆ is the ¹³ C-labeled L-Thyroxine. L-Thyroxine (Levothyroxine; T4) is a synthetic hormone for the research of hypothyroidism. DIO enzymes convert biologically active thyroid hormone (Triiodothyronine, T3) from L-Thyroxine (T4)[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]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019;53(2):211-216.
- [2]. Arici M, et al. Association between genetic polymorphism and levothyroxine bioavailability in hypothyroid patients. *Endocr J.* 2018 Mar 28;65(3):317-323.
- [3]. Corriveau S, et al. Levothyroxine treatment generates an abnormal uterine contractility patterns in an in vitro animal model. *J Clin Transl Endocrinol.* 2015 Sep 9;2(4):144-149.

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

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