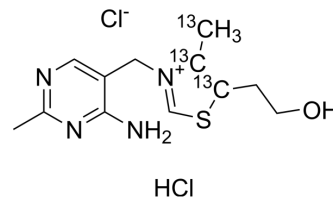


Thiamine-¹³C₃ hydrochloride

Cat. No.:	HY-N0680S3
Molecular Formula:	C ₉ ¹³ C ₃ H ₁₈ Cl ₂ N ₄ OS
Molecular Weight:	340.25
Target:	HBV; Apoptosis; Endogenous Metabolite; Isotope-Labeled Compounds
Pathway:	Anti-infection; Apoptosis; Metabolic Enzyme/Protease; Others
Storage:	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



BIOLOGICAL ACTIVITY

Description	Thiamine- ¹³ C ₃ (hydrochloride) is the ¹³ C-labeled Thiamine (hydrochloride). Thiamine hydrochloride (Thiamine chloride hydrochloride) is an essential micronutrient needed as a cofactor for many central metabolic enzymes.
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]. Moulin M, et al. Analysis of Chlamydomonas thiamin metabolism in vivo reveals riboswitch plasticity. *Proc Natl Acad Sci U S A.* 2013 Sep 3;110(36):14622-7.

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

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