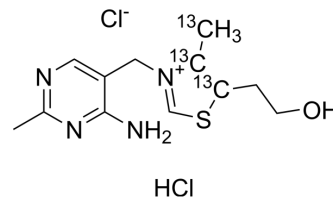


Thiamine-¹³C₃ hydrochloride

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)



SOLVENT & SOLUBILITY

In Vitro

H₂O : 100 mg/mL (293.90 mM; Need ultrasonic)
 H₂O : 100 mg/mL (293.90 mM; Need ultrasonic)
 DMSO : 6.67 mg/mL (19.60 mM; Need ultrasonic)
 DMSO : 6.67 mg/mL (19.60 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg
	1 mM		2.9390 mL	14.6951 mL	29.3902 mL
	5 mM		0.5878 mL	2.9390 mL	5.8780 mL
	10 mM		0.2939 mL	1.4695 mL	2.9390 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Thiamine-¹³C₃ (hydrochloride) is the ¹³C-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.

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

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