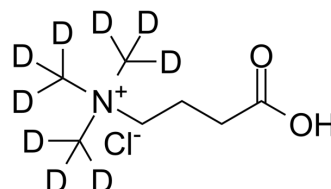


Actinine-d₉ chloride

Cat. No.:	HY-113270AS
CAS No.:	85806-17-3
Molecular Formula:	C ₇ H ₇ D ₉ ClNO ₂
Molecular Weight:	190.72
Target:	Endogenous Metabolite
Pathway:	Metabolic Enzyme/Protease
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

DMSO : 25 mg/mL (131.08 mM; ultrasonic and warming and heat to 60°C)

	Solvent Concentration	Mass	1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM		5.2433 mL	26.2164 mL	52.4329 mL
	5 mM		1.0487 mL	5.2433 mL	10.4866 mL
	10 mM		0.5243 mL	2.6216 mL	5.2433 mL

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

BIOLOGICAL ACTIVITY

Description

Actinine-d₉ chloride is the deuterium labeled Actinine chloride. Actinine chloride is angiopathic substance produced as an intermediary metabolite by gut microbiota that feed on carnitine in dietary red meat[1][2].

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]. Koeth RA, et al. γ-Butyrobetaine is a proatherogenic intermediate in gut microbial metabolism of L-carnitine to TMAO. Cell Metab. 2014 Nov 4;20(5):799-812.
- [3]. Susumu Ogawa, et al. The Dynamics of Carnitine, γ-butyrobetaine and Trimethylamine N-oxide in Diabetics and the Effects of Changes in Renal Function. Ogawa et al., J Nephrol Ren Dis 2017, 1:2

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

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