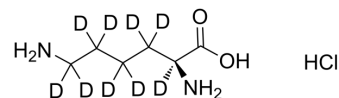


L-Lysine-d₉ hydrochloride

Cat. No.:	HY-N0470S5
CAS No.:	2708343-64-8
Molecular Formula:	C ₆ H ₆ D ₉ ClN ₂ O ₂
Molecular Weight:	191.7
Target:	Endogenous Metabolite; Virus Protease
Pathway:	Metabolic Enzyme/Protease; Anti-infection
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 (521.65 mM; Need ultrasonic)
 H₂O : 100 mg/mL (521.65 mM; Need ultrasonic)
 DMSO : ≥ 1 mg/mL (5.22 mM)
 * "≥" means soluble, but saturation unknown.

Solvent	Mass	Concentration		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	5.2165 mL	26.0824 mL	52.1648 mL
	5 mM	1.0433 mL	5.2165 mL	10.4330 mL
	10 mM	0.5216 mL	2.6082 mL	5.2165 mL

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

BIOLOGICAL ACTIVITY

Description

L-Lysine-d₉ (hydrochloride) is the deuterium labeled L-Lysine. L-lysine hydrochloride is an essential amino acid for humans with various benefits including treating herpes, increasing calcium absorption, reducing diabetes-related illnesses and improving gut health.

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]. Al-Malki AL, et al. Suppression of acute pancreatitis by L-lysine in mice. BMC Complement Altern Med. 2015 Jun 23;15:193.

[2]. Baruffol C, et al. L-lysine dose dependently delays gastric emptying and increases intestinal fluid volume in humans and rats. *Neurogastroenterol Motil.* 2014 Jul;26(7):999-1009.

[3]. Shimomura A, et al. Dietary L-lysine prevents arterial calcification in adenine-induced uremic rats. *J Am Soc Nephrol.* 2014 Sep;25(9):1954-65.

[4]. 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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