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## Product Data Sheet

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Product Name: L-Lysine-d9 hydrochloride

Cat. No.: GC69389

### Chemical Properties

Cas. No. 2708343-64-8

Formula  $C_6H_6D_9ClN_2O_2$  M.Wt 191.7

Solubility Storage 4°C, away from moisture

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure

### Background

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

Stable heavy isotopes of drogen, 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<sup>[1]</sup>.

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019;53(2):211-216.

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

[3]. 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.

[4]. Shimomura A, et al. Dietary L-lysineprevents arterial calcification in adenine-induced

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

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