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## Product Data Sheet

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Product Name: L-Citrulline-d6

Cat. No.: GC64314

### Chemical Properties

Cas. No. 1331908-61-2

Formula C<sub>6</sub>H<sub>7</sub>D<sub>6</sub>N<sub>3</sub>O<sub>3</sub> M.Wt 181.22

Solubility Storage Store at -20°C

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-Citrulline-d6 is the deuterium labeled L-Citrulline. L-Citrulline is an amino acid derived from ornithine in the catabolism of proline or glutamine and glutamate, or from L-arginine via arginine-citrulline pathway.

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].

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019;53(2):211-216. [2]. Fleszar MG, et al. Quantitative Analysis of L-Arginine, Dimethylated Arginine Derivatives, L-Citrulline, and Dimethylamine in Human Serum Using Liquid Chromatography-Mass Spectrometric Method. *Chromatographia.* 2018;81(6):911-921.

[3]. Fleszar MG, et al. Quantitative Analysis of L-Arginine, Dimethylated Arginine Derivatives, L-Citrulline, and Dimethylamine in Human Serum Using Liquid Chromatography-Mass Spectrometric Method. *Chromatographia.* 2018;81(6):911-921.

[4]. Fleszar MG, et al. Quantitative Analysis of L-Arginine, Dimethylated Arginine Derivatives, L-Citrulline, and Dimethylamine in Human Serum Using Liquid

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

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Chromatography-Mass Spectrometric Method. Chromatographia. 2018;81(6):911-921.

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