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**Product Data Sheet**

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Product Name: L-Leucine-1-13C,15N

Cat. No.: GC68037

**Chemical Properties**

Cas. No. 80134-83-4

Formula  $C_5^{13}CH_{13}^{15}NO_2$  M.Wt 133.16Solubility PBS (pH 7.2) :  $\geq 1$  mg/mL (7.51 mM) 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-Leucine-1-13C,15N is the 13C- and 15N-labeled L-Leucine. L-Leucine is an essential branched-chain amino acid (BCAA), which activates the **mTOR** signaling pathway<sup>[1]</sup>.

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<sup>[1]</sup>.

[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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