L-Alanine-1-^{13}C

Cat. No.: HY-N0229S1

CAS No.: 21764-56-7

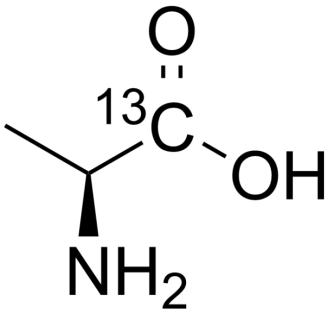
Molecular Formula: $C_2{}^{13}CH_7NO_2$

Molecular Weight: 90.09

Target: Endogenous Metabolite

Pathway: Metabolic Enzyme/Protease

Storage: 4°C, sealed storage, away from moisture and light
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 1 mg/mL (11.10 mM; ultrasonic and warming and heat to 80°C)

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Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	11.1000 mL	55.5001 mL	111.0001 mL
5 mM	2.2200 mL	11.1000 mL	22.2000 mL
10 mM	1.1100 mL	5.5500 mL	11.1000 mL

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

BIOLOGICAL ACTIVITY

Description

L-Alanine-1-^{13}C is the ^{13}C-labeled L-Alanine. L-Alanine is a non-essential amino acid, involved in sugar and acid metabolism, increases immunity, and provides energy for muscle tissue, brain, and central nervous system.

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]. Nagashima T, et al. Selective Elimination of Human Induced Pluripotent Stem Cells Using Medium with High Concentration of L-Alanine. Sci Rep. 2018 Aug 20;8(1):12427.

[2]. 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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