L-Cysteine-d_2

Cat. No.: HY-Y0337S6

CAS No.: 130633-02-2

Molecular Formula: $C_3H_5D_2NO_2S$

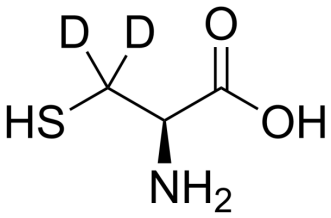
Molecular Weight: 123.17

Target: Endogenous Metabolite; Isotope-Labeled Compounds

Pathway: Metabolic Enzyme/Protease; Others

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

H_2O : 16.67 mg/mL (135.34 mM; ultrasonic and adjust pH to 2 with 1M HCl)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	8.1189 mL	40.5943 mL	81.1886 mL
5 mM	1.6238 mL	8.1189 mL	16.2377 mL
10 mM	0.8119 mL	4.0594 mL	8.1189 mL

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

BIOLOGICAL ACTIVITY

Description

L-Cysteine-d_2 is the deuterium labeled L-Cysteine. L-Cysteine is a conditionally essential amino acid, which acts as a precursor for biologically active molecules such as hydrogen sulphide (H2S), glutathione and taurine. L-Cysteine suppresses ghrelin and reduces appetite in rodents and humans[1].

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]. 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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