DL-Homocysteine-d_4

Cat. No.: HY-W010347S

CAS No.: 416845-90-4

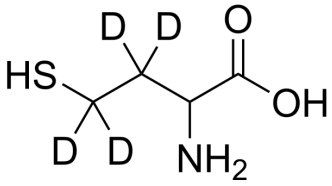
Molecular Formula: $C_4H_5D_4NO_2S$

Molecular Weight: 139.21

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

H_2O : 50 mg/mL (359.17 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	7.1834 mL	35.9170 mL	71.8339 mL
	5 mM	1.4367 mL	7.1834 mL	14.3668 mL
	10 mM	0.7183 mL	3.5917 mL	7.1834 mL

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

BIOLOGICAL ACTIVITY

Description

DL-Homocysteine-d_4 is the deuterium labeled DL-Homocysteine. DL-Homocysteine is a weak neurotoxin, and can affect the production of kynurenic acid in the brain[1][2].

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.

[2]. DL-Homocysteine, et al. Dual effect of DL-homocysteine and S-adenosylhomocysteine on brain synthesis of the glutamate receptor antagonist, kynurenic acid. J Neurosci Res. 2005 Feb 1;79(3):375-82.

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

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