DL-Methionine-d_4

Cat. No.: HY-N0325S4

CAS No.: 93709-61-6

Molecular Formula: $C_5H_7D_4NO_2S$

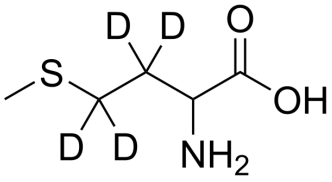
Molecular Weight: 153.24

Target: Parasite

Pathway: Anti-infection

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 : ≥ 25 mg/mL (163.14 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Concentration \ Solvent \ Mass	1 mg	5 mg	10 mg
1 mM	6.5257 mL	32.6286 mL	65.2571 mL
5 mM	1.3051 mL	6.5257 mL	13.0514 mL
10 mM	0.6526 mL	3.2629 mL	6.5257 mL

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

BIOLOGICAL ACTIVITY

Description

DL-Methionine-d_4 is the deuterium labeled DL-Methionine. DL-Methionine is an essential amino acid containing sulfur with oxidative stress defense effects. DL-Methionine can be used for animal natural feed. DL-Methionine also kills H. rostochiensis on potato plants[1][2][3].

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]. Garlich JD. Response of broilers to DL-methionine hydroxy analog free acid, DL-methionine, and L-methionine. Poult Sci. 1985 Aug;64(8):1541-8.

[3]. K. evans, et al. Effects of amino acids on the reproduction of Heterodera rostochiensis. Nematologica, 1971, 17(4), 495-500.

[4]. Swennen Q, et al. Effects of dietary protein content and 2-hydroxy-4-methylthiobutanoic acid or DL-methionine supplementation on performance and oxidative status of broiler chickens. Br J Nutr. 2011 Dec;106(12):1845-54.

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