L-Cystine-d_4

Cat. No.: HY-N0394S1

CAS No.: 1192736-38-1

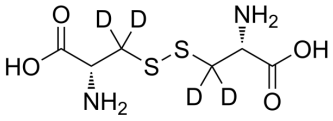
Molecular Formula: $C_6H_8D_4N_2O_4S_2$

Molecular Weight: 244.33

Target: Ferroptosis; Endogenous Metabolite; Isotope-Labeled Compounds

Pathway: Apoptosis; Metabolic Enzyme/Protease; Others

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 : 4.55 mg/mL (18.62 mM; ultrasonic and warming and adjust pH to 1 with HCl and heat to 60°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	4.0928 mL	20.4641 mL	40.9283 mL
	5 mM	0.8186 mL	4.0928 mL	8.1857 mL
	10 mM	0.4093 mL	2.0464 mL	4.0928 mL

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

BIOLOGICAL ACTIVITY

Description

L-Cystine-d_4 is the deuterium labeled L-Cystine. L-Cystine is an amino acid and intracellular thiol, which plays a critical role in the regulation of cellular processes.

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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