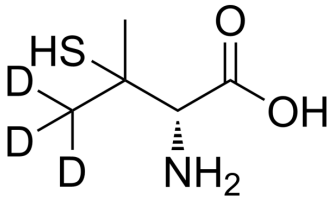
Penicillamine-d_3

Cat. No.:	HY-B0300S
Molecular Formula:	$C_5H_8D_3NO_2S$
Molecular Weight:	152.23
Target:	Drug Metabolite; Isotope-Labeled Compounds; Cuproptosis
Pathway:	Metabolic Enzyme/Protease; Others; Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Penicillamine-d_3 is the deuterium labeled Penicillamine. Penicillamine (D-(-)-Penicillamine) is the most characteristic degradation product of the penicillin antibiotics. It is used as an antirheumatic and as a chelating agent in Wilson's disease.
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]. Peisach, J. and W.E. Blumberg, A mechanism for the action of penicillamine in the treatment of Wilson's disease. Mol Pharmacol, 1969. 5(2): p. 200-9.

[3]. Jaffe, I.A., K. Altman, and P. Merryman, The Antipyridoxine Effect of Penicillamine in Man. J Clin Invest, 1964. 43: p. 1869-73.

[4]. Camp, A.V., Penicillamine in the treatment of rheumatoid arthritis. Proc R Soc Med, 1977. 70(2): p. 67-9.

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