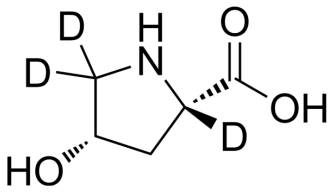
cis-4-Hydroxy-L-proline-d_3

Cat. No.:	HY-40136S
Molecular Formula:	$C_5H_6D_3NO_3$
Molecular Weight:	134.15
Target:	Endogenous Metabolite; Isotope-Labeled Compounds
Pathway:	Metabolic Enzyme/Protease; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	cis-4-Hydroxy-L-proline-d_3 is the deuterium labeled cis-4-Hydroxy-L-proline. cis-4-Hydroxy-L-proline, a proline analogue, is an inhibitor of collagen production. cis-4-Hydroxy-L-proline could inhibit fibroblast growth by preventing the deposition of triple-helical collagen on the cell layer. cis-4-Hydroxy-L-proline also depresses the growth of primary N-nitrosomethylurea-induced rat mammary tumors[1][2][3][4].
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]. Kao WW, et, al. Proline analogue removes fibroblasts from cultured mixed cell populations. Nature. 1977 Mar 3;266(5597):63-4.

[3]. Lewko WM, et, al. Sensitivity of N-nitrosomethylurea-induced rat mammary tumors to cis-hydroxyproline, an inhibitor of collagen production. Cancer Res. 1981 Jul;41(7):2855-62.

[4]. Riley DJ, et, al. Prevention of bleomycin-induced pulmonary fibrosis in the hamster by cis-4-hydroxy-l-proline. Am Rev Respir Dis. 1981 Apr;123(4 Pt 1):388-93.

[5]. Tan EM, et, al. Proline analogues inhibit human skin fibroblast growth and collagen production in culture. J Invest Dermatol. 1983 Apr;80(4):261-7.

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