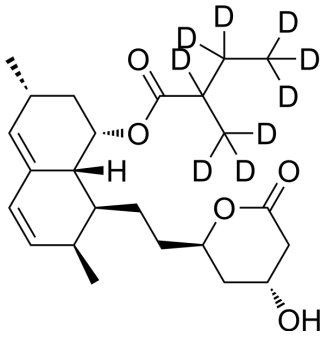
Lovastatin-d_9

Cat. No.:	HY-N0504S1
Molecular Formula:	$C_{24}H_{27}D_9O_5$
Molecular Weight:	413.6
Target:	Autophagy; HMG-CoA Reductase (HMGCR); Ferroptosis; Isotope-Labeled Compounds
Pathway:	Autophagy; Metabolic Enzyme/Protease; Apoptosis; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Lovastatin-d_9 is the deuterium labeled Lovastatin. Lovastatin is a cell-permeable HMG-CoA reductase inhibitor used to lower cholesterol.
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]. Alberts AW, et al. Discovery, biochemistry and biology of lovastatin. Am J Cardiol. 1988 Nov 11;62(15):10J-15J.

[3]. Kah J, et al. Selective induction of apoptosis by HMG-CoA reductase inhibitors in hepatoma cells and dependence on p53 expression. Oncol Rep. 2012 Sep;28(3):1077-83.

[4]. Frishman WH, et al. Lovastatin: an HMG-CoA reductase inhibitor for lowering cholesterol. Med Clin North Am. 1989 Mar;73(2):437-48.

[5]. Tobert JA, et al. Lovastatin and beyond: the history of the HMG-CoA reductase inhibitors. Nat Rev Drug Discov. 2003 Jul;2(7):517-26.

[6]. Ifergan I, et al. Statins reduce human blood-brain barrier permeability and restrict leukocyte migration: relevance to multiple sclerosis. Ann Neurol. 2006 Jul;60(1):45-55.

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