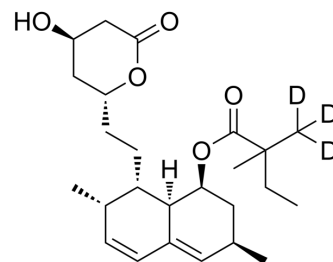


Simvastatin-d₃

Cat. No.:	HY-17502S1
CAS No.:	1002347-61-6
Molecular Formula:	C ₂₅ H ₃₅ D ₃ O ₅
Molecular Weight:	421.58
Target:	Apoptosis; Autophagy; HMG-CoA Reductase (HMGCR); Ferroptosis; Mitophagy
Pathway:	Apoptosis; Autophagy; Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Simvastatin-d ₃ is the deuterium labeled Simvastatin[1]. Simvastatin (MK 733) is a competitive inhibitor of HMG-CoA reductase with a K _i of 0.2 nM[2].
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 Feb;53(2):211-216.
- [2]. Slater, E.E., et al. Mechanism of action and biological profile of HMG CoA reductase inhibitors. A new therapeutic alternative. *Drugs*, 1988. 36 Suppl 3: p. 72-82.

Caution: Product has not been fully validated for medical applications. For research use only.

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