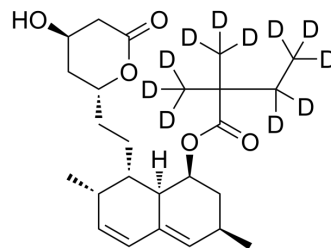


## Simvastatin-d<sub>11</sub>

<b>Cat. No.:</b>	HY-17502S
<b>CAS No.:</b>	1002347-74-1
<b>Molecular Formula:</b>	C <sub>25</sub> H <sub>27</sub> D <sub>11</sub> O <sub>5</sub>
<b>Molecular Weight:</b>	429.63
<b>Target:</b>	Apoptosis; Autophagy; Ferroptosis; HMG-CoA Reductase (HMGR); Mitophagy; Isotope-Labeled Compounds
<b>Pathway:</b>	Apoptosis; Autophagy; Metabolic Enzyme/Protease; Others
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Simvastatin-d <sub>11</sub> is the deuterium labeled Simvastatin. Simvastatin (MK 733) is a competitive inhibitor of HMG-CoA reductase with a K <sub>i</sub> of 0.2 nM <sup>[1][2]</sup> .
<b>In Vitro</b>	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 <sup>[1]</sup> . 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]. Zhang H, et al. Advances in the discovery of exosome inhibitors in cancer. *J Enzyme Inhib Med Chem.* 2020;35(1):1322-1330.
- [3]. others

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

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