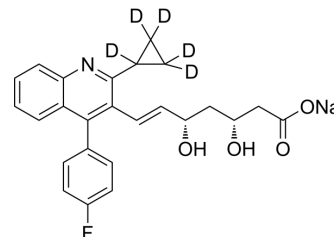


## Pitavastatin-d<sub>5</sub> sodium

|                           |  |
|---------------------------|--|
| <b>Cat. No.:</b>          | HY-B0144AS1  |
| <b>Molecular Formula:</b> | C <sub>25</sub> H <sub>18</sub> D <sub>5</sub> FNNaO <sub>4</sub>                                      |
| <b>Molecular Weight:</b>  | 448.47   |
| <b>Target:</b>            | Apoptosis; HMG-CoA Reductase (HMGCR); Mitophagy; Autophagy   |
| <b>Pathway:</b>           | Apoptosis; Metabolic Enzyme/Protease; Autophagy  |
| <b>Storage:</b>           | -20°C, stored under nitrogen<br>* In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen) |



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 100 mg/mL (222.98 mM; Need ultrasonic)

| Concentration             | Solvent | Mass      |            |            |
|---------------------------|---------|-----------|------------|------------|
|                           |         | 1 mg      | 5 mg       | 10 mg      |
| Preparing Stock Solutions | 1 mM    | 2.2298 mL | 11.1490 mL | 22.2980 mL |
|                           | 5 mM    | 0.4460 mL | 2.2298 mL  | 4.4596 mL  |
|                           | 10 mM   | 0.2230 mL | 1.1149 mL  | 2.2298 mL  |

Please refer to the solubility information to select the appropriate solvent.

### BIOLOGICAL ACTIVITY

#### Description

Pitavastatin-d<sub>5</sub> (sodium) is the deuterium labeled Pitavastatin sodium. Pitavastatin (NK-104) is a potent hydroxymethylglutaryl-CoA (HMG-CoA) reductase inhibitor. Pitavastatin inhibits cholesterol synthesis from acetic acid with an IC<sub>50</sub> of 5.8 nM in HepG2 cells. Pitavastatin is an efficient hepatocyte low-density lipoprotein-cholesterol (LDL-C) receptor inducer. Anti-cancer activity.

#### 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<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. ;Morikawa S, et al. Relative induction of mRNA for HMG CoA reductase and LDL receptor by five different HMG-CoA reductase
- [2]. Morikawa S, et al. Relative induction of mRNA for HMG CoA reductase and LDL receptor by five different HMG-CoA reductase inhibitors in cultured human cells. *J*

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Atheroscler Thromb. 2000;7(3):138-44.

[3]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019 Feb;53(2):211-216.

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

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