Product Data Sheet

Verapamil-d₆ hydrochloride

Cat. No.: HY-A0064S1 CAS No.: 1185032-80-7 Molecular Formula: $C_{27}H_{33}D_6ClN_2O_4$

Molecular Weight: 497.1

Target: Isotope-Labeled Compounds

Pathway: Others

Storage: Please store the product under the recommended conditions in the Certificate of

Analysis.

HCI

BIOLOGICAL ACTIVITY

Description	Verapamil- d_6 (CP-16533-1- d_6) hydrochloride is the deuterium labled Verapamil (hydrochloride) (HY-A0064). Verapamil hydrochloride ((\pm)-Verapamil hydrochloride) is a calcium channel blocker and a potent and orally active first-generation P-glycoprotein (P-gp) inhibitor. Verapamil hydrochloride also inhibits CYP3A4. Verapamil hydrochloride has the potential for high blood pressure, heart arrhythmias and angina research ^{[1][2][3]} .
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 ^[4] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Krikler DM. Verapamil in arrhythmia. Br J Clin Pharmacol. 1986;21 Suppl 2:183S-189S.

 $[2].\ Zhou\ P,\ et\ al.\ Anti-arrhythmic\ effect\ of\ Verapamil\ is\ accompanied\ by\ preservation\ of\ cx43\ protein\ in\ rat\ heart.\ PLoS\ One.\ 2013\ Aug\ 12;8(8):e71567.$

[3]. Gowarty JL, et al. Verapamil as a culprit of palbociclib toxicity. J Oncol Pharm Pract. 2019 Apr;25(3):743-746.

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

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

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