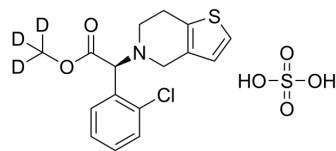


Clopidogrel-d₃ hydrogen sulfate

Cat. No.:	HY-17459S
CAS No.:	1217643-68-9
Molecular Formula:	C ₁₆ H ₁₅ D ₃ ClNO ₆ S ₂
Molecular Weight:	422.92
Target:	P2Y Receptor; Cytochrome P450
Pathway:	GPCR/G Protein; Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Clopidogrel-d ₃ (hydrogen sulfate) is the deuterium labeled Clopidogrel hydrogen sulfate[1]. Clopidogrel hydrogen sulfate is an antiplatelet agent to prevent blood clots. Clopidogrel hydrogen sulfate inhibits CYP2B6 and CYP2C19 with IC50s of 18.2 nM and 524 nM, respectively. Clopidogrel hydrogen sulfate is a potent antithrombotic agent that inhibits ADP-induced platelet aggregation. Clopidogrel hydrogen sulfate also is an orally active P2Y ₁₂ inhibitor[2][3][4][5][6].
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]. Katsunobu Hagihara, et al. Comparison of human cytochrome P450 inhibition by the thienopyridines prasugrel, Clopidogrel, and ticlopidine. *Drug Metab Pharmacokinet*. 2008;23(6):412-20.
- [3]. Jean-Marc Herbert, et al. P2Y₁₂, a new platelet ADP receptor, target of Clopidogrel. *Semin Vasc Med*. 2003 May;3(2):113-22.
- [4]. Hai-Lu Wu, et al. Increased endoplasmic reticulum stress response is involved in Clopidogrel-induced apoptosis of gastric epithelial cells. *PLoS One*. 2013 Sep 13;8(9):e74381.
- [5]. Ran Ni, et al. Effect of Different Doses of Acetylsalicylic Acid on the Antithrombotic Activity of Clopidogrel in a Mouse Arterial Thrombosis Model. *Arterioscler Thromb Vasc Biol*. 2018 Oct;38(10):2338-2344.
- [6]. Kuszynski DS, et al. Clopidogrel treatment inhibits P2Y₂-Mediated constriction in the rabbit middle cerebral artery [published online ahead of print, 2021 Oct 1]. *Eur J Pharmacol*. 2021;174545.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA