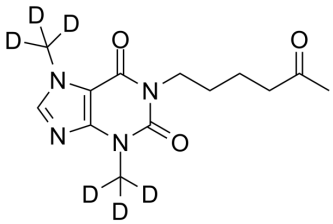
Pentoxifylline-d6

Cat. No.:	HY-B0715S
CAS No.:	1185878-98-1
Molecular Formula:	$C_{13}H_{12}D_6N_4O_3$
Molecular Weight:	284.34
Target:	Phosphodiesterase (PDE); Autophagy; HIV
Pathway:	Metabolic Enzyme/Protease; Autophagy; Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Pentoxifylline-d6 (BL-191-d6) is the deuterium labeled Pentoxifylline. Pentoxifylline (BL-191), a haemorheological agent, is an orally active non-selective phosphodiesterase (PDE) inhibitor, with immune modulation, anti-inflammatory, hemorheological, anti-fibrinolytic and anti-proliferation effects. Pentoxifylline can be used for the research of peripheral vascular disease, cerebrovascular disease and a number of other conditions involving a defective regional microcirculation [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[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;53(2):211-216.

[2]. Iffat Hassan, et al. Pentoxifylline and its applications in dermatology. Indian Dermatol Online J. 2014 Oct-Dec; 5(4): 510–516.

[3]. A Ward, et al. Pentoxifylline. A review of its pharmacodynamic and pharmacokinetic properties, and its therapeutic efficacy. Drugs. 1987 Jul;34(1):50-97.

[4]. Yessica Cristina Castellanos-Esparza, et al. Synergistic promoting effects of pentoxifylline and simvastatin on the apoptosis of triple-negative MDA-MB-231 breast cancer cells. Int J Oncol. 2018 Apr;52(4):1246-1254.

[5]. Shabnam Movassaghi, et al. Effect of Pentoxifylline on Ischemia- induced Brain Damage and Spatial Memory Impairment in Rat. Iran J Basic Med Sci. 2012 Sep-Oct; 15(5): 1083-1090.

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