Pentoxifylline-d5

Cat. No.: HY-B0715S2

CAS No.: 1185995-18-9

Molecular Formula: $C_{13}H_{13}D_5N_4O_3$

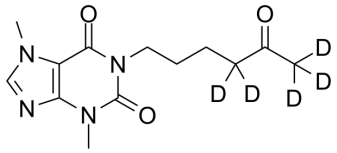
Molecular Weight: 283.34

Target: Phosphodiesterase (PDE); Autophagy; HIV

Pathway: Metabolic Enzyme/Protease; Autophagy; Anti-infection

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (352.93 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	3.5293 mL	17.6466 mL	35.2933 mL
5 mM	0.7059 mL	3.5293 mL	7.0587 mL
10 mM	0.3529 mL	1.7647 mL	3.5293 mL

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

BIOLOGICAL ACTIVITY

Description

Pentoxifylline-d5 (BL-191-d5) 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.

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