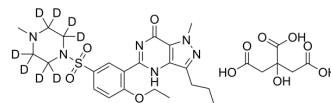


Sildenafil citrate-d₈

Cat. No.:	HY-15025AS
CAS No.:	1215071-03-6
Molecular Formula:	C ₂₈ H ₃₀ D ₈ N ₆ O ₁₁ S
Molecular Weight:	674.75
Target:	Phosphodiesterase (PDE); Apoptosis; Bacterial; Autophagy
Pathway:	Metabolic Enzyme/Protease; Apoptosis; Anti-infection; Autophagy
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Sildenafil (citrate)-d ₈ is the deuterium labeled Sildenafil citrate[1]. Sildenafil citrate is a potent phosphodiesterase type 5 (PDE5) inhibitor with IC ₅₀ of 5.22 nM.
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]. Wang Z, et al. The Selectivity and Potency of the New PDE5 Inhibitor TPN729MA. *J Sex Med*. 2013 Nov;10(11):2790-7.
- [3]. Li BB, et al. Sildenafil potentiates the proliferative effect of porcine pulmonary artery smooth muscle cells induced by serotonin in vitro. *Chin Med J (Engl)*. 2011 Sep;124(17):2733-40.
- [4]. Moretti R, et al. Sildenafil, a cyclic GMP phosphodiesterase inhibitor, induces microglial modulation after focal ischemia in the neonatal mouse brain. *J Neuroinflammation*. 2016 Apr 28;13(1):95.
- [5]. Korkmaz MF, et al. The Effect of Sildenafil on Recuperation from Sciatic Nerve Injury in Rats. *Balkan Med J*. 2016 Mar;33(2):204-11.

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

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