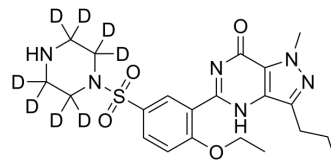


## N-Desmethyl Sildenafil-d8

<b>Cat. No.:</b>	HY-117605S
<b>CAS No.:</b>	1185168-06-2
<b>Molecular Formula:</b>	C <sub>21</sub> H <sub>20</sub> D <sub>8</sub> N <sub>6</sub> O <sub>4</sub> S
<b>Molecular Weight:</b>	468.6
<b>Target:</b>	Phosphodiesterase (PDE); Isotope-Labeled Compounds
<b>Pathway:</b>	Metabolic Enzyme/Protease; Others
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	N-Desmethyl Sildenafil-d8 (Desmethylsildenafil-D8) is the deuterium labeled <a href="#">N-Desmethyl Sildenafil</a> (HY-117605). N-Desmethyl Sildenafil is a major metabolite of Sildenafil. Sildenafil is a potent phosphodiesterase type 5 (PDE5) inhibitor <sup>[1][2]</sup> [3].
<b>In Vitro</b>	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 <sup>[1]</sup> . 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]. Péter Barabás, et al. Sildenafil, N-desmethyl-sildenafil and Zaprinast enhance photoreceptor response in the isolated rat retina. *Neurochem Int*. 2003 Nov;43(6):591-5.
- [3]. Rikako Takahiro, et al. Contribution of CYP3A isoforms to dealkylation of PDE5 inhibitors: a comparison between sildenafil N-demethylation and tadalafil demethylation. *Biol Pharm Bull*. 2015;38(1):58-65.

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

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