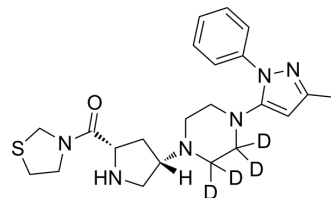


## Teneligliptin-d<sub>4</sub>

<b>Cat. No.:</b>	HY-14806S1
<b>Molecular Formula:</b>	C <sub>22</sub> H <sub>26</sub> D <sub>4</sub> N <sub>6</sub> OS
<b>Molecular Weight:</b>	430.6
<b>Target:</b>	Dipeptidyl Peptidase; 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>	Teneligliptin-d <sub>4</sub> is deuterium labeled Teneligliptin. Teneligliptin (MP-513) is a potent, orally available, competitive, and long-lasting DPP-4 inhibitor. Teneligliptin competitively inhibits human plasma, rat plasma, and human recombinant DPP-4 in vitro, with IC <sub>50</sub> s of approximately 1 nM <sup>[1]</sup> .
<b>IC<sub>50</sub> &amp; Target</b>	DPP-4
<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;53(2):211-216.
- [2]. Fukuda-Tsuru S, et al. A novel, potent, and long-lasting dipeptidyl peptidase-4 inhibitor, teneligliptin, improves postprandial hyperglycemia and dyslipidemia after single and repeated administrations. *Eur J Pharmacol.* 2012 Dec 5;696(1-3):194-202.
- [3]. Ideta T, et al. The Dipeptidyl Peptidase-4 Inhibitor Teneligliptin Attenuates Hepatic Lipogenesis via AMPK Activation in Non-Alcoholic Fatty Liver Disease Model Mice. *Int J Mol Sci.* 2015 Dec 8;16(12):29207-18.

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

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