## **Product** Data Sheet

## Xylometazoline-d<sub>4</sub> hydrochloride

Molecular Weight: 284.86

Target: Adrenergic Receptor; Isotope-Labeled Compounds

Pathway: GPCR/G Protein; Neuronal Signaling; Others

Storage: Please store the product under the recommended conditions in the Certificate of

Analysis.

## **BIOLOGICAL ACTIVITY**

| Description | Xylometazoline-d <sub>4</sub> hydrochloride is deuterated labeled Xylometazoline hydrochloride (HY-B0475). Xylometazoline hydrochloride is an $\alpha$ -adrenergic receptor agonist ( $K_i$ =0.05-1.7 μM). Xylometazoline hydrochloride can constrict nasal blood vessels and increase nasal airflow. Xylometazoline hydrochloride can be used in nose stuffiness and runny nose research <sup>[1]</sup> [ <sup>2]</sup> .   |
|-------------|--|
| 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 <sup>[1]</sup> .  MCE has not independently confirmed the accuracy of these methods. They are for reference only. |

## **REFERENCES**

- [1]. Ronald Eccles, et al. The nasal decongestant effect of xylometazoline in the common cold. Am J Rhinol. 2008 Sep-Oct;22(5):491-6.
- $[2]. \ Britta\ Haenisch, et\ al.\ Alpha-adrenoceptor\ agonistic\ activity\ of\ oxymetazoline\ and\ xylometazoline.\ Fundam\ Clin\ Pharmacol.\ 2010\ Dec; 24(6):729-39.$
- [3]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019 Feb;53(2):211-216.

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

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