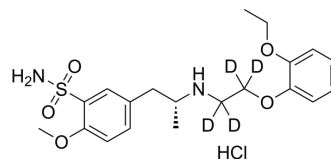


Tamsulosin-d₄ hydrochloride

Cat. No.:	HY-B0661AS1
CAS No.:	2518100-55-3
Molecular Formula:	C ₂₀ H ₂₅ D ₄ ClN ₂ O ₅ S
Molecular Weight:	449
Target:	Adrenergic Receptor; Endogenous Metabolite; Isotope-Labeled Compounds
Pathway:	GPCR/G Protein; Neuronal Signaling; Metabolic Enzyme/Protease; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Tamsulosin-d ₄ (hydrochloride) is deuterium labeled Tamsulosin (hydrochloride). Tamsulosin hydrochloride ((R)-(-)-YM12617) is an inhibitor of α ₁ -adrenergic receptor. Tamsulosin hydrochloride is used for the research of prostatic hyperplasia. Tamsulosin hydrochloride attenuates abdominal aortic aneurysm growth in animal models[1].
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]. Christopher Chapple, et al. Tamsulosin: an overview. *World J Urol.* 2002 Apr;19(6):397-404.
- [3]. William G. Montgomery, BA, et al. Tamsulosin Attenuates Abdominal Aortic Aneurysm Growth. *Surgery.* 2018 Nov; 164(5): 1087-1092.

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

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