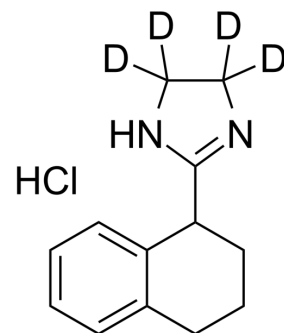


## Tetrahydrozoline-d<sub>4</sub> hydrochloride

<b>Cat. No.:</b>	HY-B0556AS
<b>CAS No.:</b>	1246814-66-3
<b>Molecular Formula:</b>	C <sub>13</sub> H <sub>13</sub> D <sub>4</sub> ClN <sub>2</sub>
<b>Molecular Weight:</b>	240.77
<b>Target:</b>	Adrenergic Receptor
<b>Pathway:</b>	GPCR/G Protein; Neuronal Signaling
<b>Storage:</b>	-20°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



### BIOLOGICAL ACTIVITY

<b>Description</b>	Tetrahydrozoline-d <sub>4</sub> (hydrochloride) is the deuterium labeled Tetrahydrozoline hydrochloride. Tetrahydrozoline hydrochloride (Tetryzoline hydrochloride), a derivative of imidazoline, is an α-adrenergic agonist that causes vasoconstriction. Tetrahydrozoline hydrochloride is widely used for the research of nasal congestion and conjunctival congestion[1][2].
<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]. E Kisilevsky, et al. Anterior and posterior segment vasculopathy associated with long-term use of tetrahydrozoline. *CMAJ.* 2018 Oct 9;190(40):E1208.
- [3]. Judy Peat, et al. Determination of tetrahydrozoline in urine and blood using gas chromatography-mass spectrometry (GC-MS). *Methods Mol Biol.* 2010;603:501-8.
- [4]. Danuta Nowakowska, et al. In vitro effects of vasoconstrictive retraction agents on primary human gingival fibroblasts. *Exp Ther Med.* 2020 Mar; 19(3): 2037-2044.

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

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