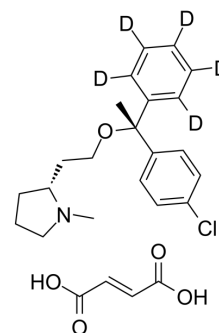


## Clemastine-d<sub>5</sub> fumarate

Cat. No.:	HY-B0298AS
Molecular Formula:	C <sub>25</sub> H <sub>25</sub> D <sub>5</sub> ClNO <sub>5</sub>
Molecular Weight:	464.99
Target:	Histamine Receptor; Autophagy
Pathway:	GPCR/G Protein; Immunology/Inflammation; Neuronal Signaling; Autophagy
Storage:	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 100 mg/mL (215.06 mM; Need ultrasonic)

Solvent	Mass	Concentration		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.1506 mL	10.7529 mL	21.5058 mL
	5 mM	0.4301 mL	2.1506 mL	4.3012 mL
	10 mM	0.2151 mL	1.0753 mL	2.1506 mL

Please refer to the solubility information to select the appropriate solvent.

### BIOLOGICAL ACTIVITY

#### Description

Clemastine-d<sub>5</sub> (fumarate) is the deuterium labeled Clemastine fumarate. Clemastine fumarate (HS-592 fumarate) is a selective histamine H1 receptor antagonist with IC<sub>50</sub> of 3 nM.

#### 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.

### CUSTOMER VALIDATION

- Biochem Biophys Res Commun. 2022.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

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## REFERENCES

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- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019;53(2):211-216.
- [2]. Seifert, R., et al., Histamine increases cytosolic Ca<sup>2+</sup> in dibutyryl-cAMP-differentiated HL-60 cells via H1 receptors and is an incomplete secretagogue. *Mol Pharmacol*, 1992. 42(2): p. 227-34.
- [3]. Schran, H.F., et al., The pharmacokinetics and bioavailability of clemastine and phenylpropanolamine in single-component and combination formulations. *J Clin Pharmacol*, 1996. 36(10): p. 911-22.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA