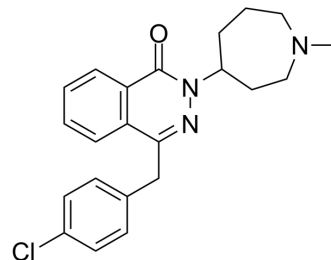


## Azelastine

<b>Cat. No.:</b>	HY-B0462A
<b>CAS No.:</b>	58581-89-8
<b>Molecular Formula:</b>	C <sub>22</sub> H <sub>24</sub> ClN <sub>3</sub> O
<b>Molecular Weight:</b>	381.9
<b>Target:</b>	Histamine Receptor; SARS-CoV
<b>Pathway:</b>	GPCR/G Protein; Immunology/Inflammation; Neuronal Signaling; Anti-infection
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Azelastine, an antihistamine, is a potent and selective histamine 1 (H <sub>1</sub> ) antagonist. Azelastine can be used for the research of allergic rhinitis, asthma, diabetic hyperlipidemic and SARS-CoV-2 <sup>[1][2][3][4]</sup> .	
<b>IC<sub>50</sub> &amp; Target</b>	H <sub>1</sub> Receptor	
<b>In Vitro</b>	Azelastine can significantly inhibit HNEpC proliferation, and therefore, be helpful in against airway remodeling <sup>[5]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Cell Proliferation Assay <sup>[5]</sup>	
	Cell Line:	Human nasal epithelial cells (HNEpC)
	Concentration:	100 μM, 400 μM
	Incubation Time:	21 days
	Result:	Inhibited HNEpC growth.
	Western Blot Analysis <sup>[5]</sup>	
	Cell Line:	Human nasal epithelial cells (HNEpC)
	Concentration:	100 μM
	Incubation Time:	7 days
Result:	Significantly up-regulated the H1R, M1R and M3R levels.	
<b>In Vivo</b>	Azelastine (4 mg/kg; p.o.; daily; for 8 weeks) significantly reduces blood glucose, HbA1c and serum alkaline phosphatase (ALP), osteocalcin and downregulates apolipoprotein B in diabetic hyperlipidemic rats model <sup>[2]</sup> . Azelastine (4 mg/kg; p.o.; daily; for 8 weeks) improves the lipid profile (LDL-c decrease and HDL-c increase) in diabetic hyperlipidemic rats model <sup>[2]</sup> . Azelastine (4 mg/kg; p.o.; daily; for 8 weeks) attenuates calcium deposition and aortic calcification in diabetic hyperlipidemic rats model <sup>[2]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	

Animal Model:	Male albino Wistar rats (150-170 g), diabetic hyperlipidemic rats model <sup>[2]</sup>
Dosage:	4 mg/kg
Administration:	Oral administration, daily, for 8 weeks
Result:	Ameliorated aortic calcification and increased apolipoprotein A expression along with a decline in apolipoprotein B.

## REFERENCES

- [1]. Craig La Force. Review of the pharmacology, clinical efficacy, and safety of azelastine hydrochloridel. *Expert Rev Clin Immunol*. 2005 Jul;1(2):191-201.
- [2]. Mohamed M Elseweidy, et al. Azelastine a potent antihistamine agent, as hypolipidemic and modulator for aortic calcification in diabetic hyperlipidemic rats model. *Arch Physiol Biochem*. 2020 Jul 2;1-8.
- [3]. Carlos D. Zappia, et al. Azelastine potentiates antiasthmatic dexamethasone effect on a murine asthma model. *Pharmacol Res Perspect*. 2019 Dec; 7(6): e00531.
- [4]. Li Yang, et al. Identification of SARS-CoV-2 entry inhibitors among already approved drugs. *Acta Pharmacol Sin*. 2020 Oct 28 : 1-7.
- [5]. Shao-Cheng Liu, et al. Effect of budesonide and azelastine on histamine signaling regulation in human nasal epithelial cells. *Eur Arch Otorhinolaryngol*. 2017 Feb;274(2):845-853.

**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

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