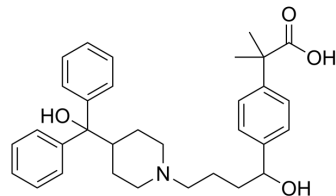


Fexofenadine

Cat. No.:	HY-B0801		
CAS No.:	83799-24-0		
Molecular Formula:	C ₃₂ H ₃₉ NO ₄		
Molecular Weight:	501.66		
Target:	Histamine Receptor		
Pathway:	GPCR/G Protein; Immunology/Inflammation; Neuronal Signaling		
Storage:	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



BIOLOGICAL ACTIVITY

Description	Fexofenadine (MDL-16455) is an orally active and nonsedative H ₁ receptor antagonist. Fexofenadine can be used in allergic rhinitis and chronic idiopathic urticarial research ^{[1][2][3]} .								
IC₅₀ & Target	H ₁ Receptor								
In Vitro	<p>Fexofenadine (1-100 μM; 1 h) inhibits the expression of IL-6 protein in nasal fibroblasts in a dose-dependent manner^[2]. Fexofenadine (1-100 μM; 1 h) blocks phosphorylated p38 activation in histamine-induced nasal fibroblasts, but shows no effect on either pERK or pJNK^[2].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Western Blot Analysis^[2]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>Nasal fibroblasts</td> </tr> <tr> <td>Concentration:</td> <td>100 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>1 hour</td> </tr> <tr> <td>Result:</td> <td>Blocked pp38 activation in histamine-induced nasal fibroblasts, showed histamine-induced IL-6 production mediated by the p38 pathway.</td> </tr> </table>	Cell Line:	Nasal fibroblasts	Concentration:	100 μM	Incubation Time:	1 hour	Result:	Blocked pp38 activation in histamine-induced nasal fibroblasts, showed histamine-induced IL-6 production mediated by the p38 pathway.
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In Vivo	<p>Fexofenadine hydrochloride (oral administration; 5-20 mg/kg; once daily; 3 w) suppresses both eosinophilia and systemic anaphylaxis in C57BL/6 mice infected with <i>T. spiralis</i>^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table border="1"> <tr> <td>Animal Model:</td> <td>C57BL/6 mice infected with <i>Trichinella spiralis</i>^[1]</td> </tr> <tr> <td>Dosage:</td> <td>5, 10 and 20 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>Oral administration; 5, 10 and 20 mg/kg; once daily; 3 weeks</td> </tr> <tr> <td>Result:</td> <td>Inhibited eosinophilia in a dose-dependent manner. Suppressed the decrease in rectal temperature (p<0.01), a marker for systemic anaphylaxis.</td> </tr> </table>	Animal Model:	C57BL/6 mice infected with <i>Trichinella spiralis</i> ^[1]	Dosage:	5, 10 and 20 mg/kg	Administration:	Oral administration; 5, 10 and 20 mg/kg; once daily; 3 weeks	Result:	Inhibited eosinophilia in a dose-dependent manner. Suppressed the decrease in rectal temperature (p<0.01), a marker for systemic anaphylaxis.
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CUSTOMER VALIDATION

- Pharmacol Res. 2023 Mar 10;106724.
- Adv Mater Technol. 2023 Jan 29.
- Int Immunopharmacol. 2023 Feb 8;116:109637.

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REFERENCES

- [1]. Watanabe N, et al. The effects of fexofenadine on eosinophilia and systemic anaphylaxis in mice infected with *Trichinella spiralis*. *Int Immunopharmacol*. 2004 Mar;4(3):367-75.
- [2]. Park IH, et al. Histamine Promotes the Release of Interleukin-6 via the H1R/p38 and NF- κ B Pathways in Nasal Fibroblasts. *Allergy Asthma Immunol Res*. 2014 Nov;6(6):567-72.
- [3]. Ming X, et al. Vectorial transport of fexofenadine across Caco-2 cells: involvement of apical uptake and basolateral efflux transporters. *Mol Pharm*. 2011 Oct 3;8(5):1677-86.
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Caution: Product has not been fully validated for medical applications. For research use only.

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