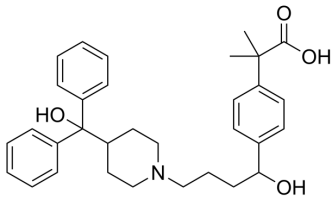
Fexofenadine

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 H1 receptor antagonist. Fexofenadine can be used in allergic rhinitis and chronic idiopathic urticarial research[1][2][3].

IC_{50} & Target

H_1 Receptor

In Vitro

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].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Western Blot Analysis[2]

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.

In Vivo

Fexofenadine hydrochloride (oral administration; 5-20 mg/kg; once daily; 3 w) suppresses both eosinophilia and systemic anaphylaxis in C57BL/6 mice infected with T. spiralis[1].

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Animal Model:	C57BL/6 mice infected with Trichinella spiralis[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.

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-κB 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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