Fexofenadine hydrochloride

Cat. No.: HY-B0801A

CAS No.: 153439-40-8

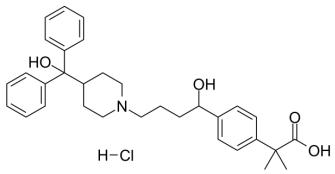
Molecular Formula: $C_{32}H_{40}ClNO_4$

Molecular Weight: 538.12

Target: Histamine Receptor

Pathway: GPCR/G Protein; Immunology/Inflammation; Neuronal Signaling

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 (185.83 mM)

H_2O : < 0.1 mg/mL (ultrasonic;warming;heat to 60°C) (insoluble)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	1.8583 mL	9.2916 mL	18.5832 mL
5 mM	0.3717 mL	1.8583 mL	3.7166 mL
10 mM	0.1858 mL	0.9292 mL	1.8583 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (4.65 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (4.65 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (4.65 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Fexofenadine hydrochloride (MDL-16455 hydrochloride), a H1R antagonist, is an anti-allergic agent used in seasonal allergic rhinitis and chronic idiopathic urticarial (person aged ≥16 years)[1].

IC_{50} & Target

H1R[1]

In Vitro

Fexofenadine hydrochloride (MDL-16455 hydrochloride) (100 μM; 1 hour) effectively blocks phosphorylated p38 activation in histamine-induced nasal fibroblasts[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:	Effectively blocked phosphorylated p38 activation in histamine-induced nasal fibroblasts.

In Vivo

Fexofenadine hydrochloride (MDL-16455 hydrochloride) (5-20 mg/kg; oral daily for 3 weeks) dose-dependently suppresses eosinophilia in C57BL/6 mice infected with T. spiralis[1].

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

Animal Model:	C57BL/6 mice[1]
Dosage:	5, 10, 20 mg/kg
Administration:	Orally; daily for 3 weeks
Result:	Specifically dose-dependently suppressed eosinophilia in C57BL/6 mice infected with T. spiralis.

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 NasalFibroblasts. Allergy Asthma Immunol Res. 2014 Nov;6(6):567-72.

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