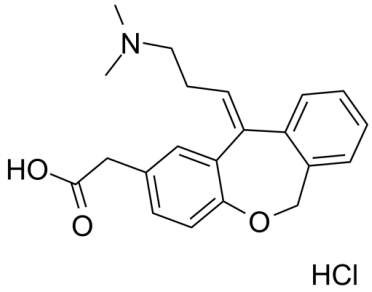
Data Sheet

Product Name:	Olopatadine (hydrochloride)
Cat. No.:	CS-2532
CAS No.:	140462-76-6
Molecular Formula:	C21H24ClNO3
Molecular Weight:	373.87
Target:	Histamine Receptor
Pathway:	GPCR/G Protein; Immunology/Inflammation; Neuronal Signaling
Solubility:	DMSO : 50 mg/mL (133.74 mM; Need ultrasonic); H2O : 6.67 mg/mL (17.84 mM; Need ultrasonic)



BIOLOGICAL ACTIVITY:

Olopatadine hydrochloride (ALO4943A) is a histamine blocker used to treat allergic conjunctivitis. Target: Histamine Receptor Olopatadine hydrochloride (ALO4943A) is one of the second-generation histamine H1 receptor antagonists that are treated for allergic disorders. Olopatadine hydrochloride (ALO4943A) significantly inhibited the ear swelling and the increased production of IL-4, IL-1beta, IL-6, GM-CSF and NGF in the lesioned ear [1]. Olopatadine hydrochloride (ALO4943A) was highly and rapidly absorbed in healthy human volunteers. The urinary excretion of Olopatadine hydrochloride (ALO4943A) accounted for not less than 58% and the contribution of metabolism was considerably low in the clearance of olopatadine in humans. Olopatadine hydrochloride (ALO4943A) is one of the few renal clearance drugs in antiallergic drugs. Olopatadine hydrochloride (ALO4943A) was shown to be useful for the treatment of allergic rhinitis and chronic urticaria in double-blind clinical trials [2]. Olopatadine hydrochloride (ALO4943A) inhibits histamine release in a concentration-dependent fashion (IC50 = 559 microM) from human conjunctival mast cell preparations in vitro. Passive anaphylaxis in guinea pig conjunctiva was attenuated by Olopatadine hydrochloride (ALO4943A) applied 30 min prior to intravenous or topical ocular antigen challenge (ED50 values 0.0067% and 0.0170%, w/v, respectively) [3].

References:

[1]. Tamura, T., et al., Effect of olopatadine and other histamine H1 receptor antagonists on the skin inflammation induced by repeated topical application of oxazolone in mice. Pharmacology, 2005. 75(1): p. 45-52.

[2]. Ohmori, K., et al., Pharmacological, pharmacokinetic and clinical properties of olopatadine hydrochloride, a new antiallergic drug. Jpn J Pharmacol, 2002. 88(4): p. 379-97.

[3]. Yanni, J.M., et al., The in vitro and in vivo ocular pharmacology of olopatadine (AL-4943A), an effective anti-allergic/antihistaminic agent. J Ocul Pharmacol Ther, 1996. 12(4): p. 389-400.

CAIndexNames:

Dibenz[b,e]oxepin-2-acetic acid, 11-[3-(dimethylamino)propylidene]-6,11-dihydro-, hydrochloride (1:1), (11Z)-

SMILES:

O=C(O)CC1=CC=C(C/2=C1)OCC3=CC=CC=C3C2=C\CCN(C)C.Cl

Caution: Product has not been fully validated for medical applications. For research use only.

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