

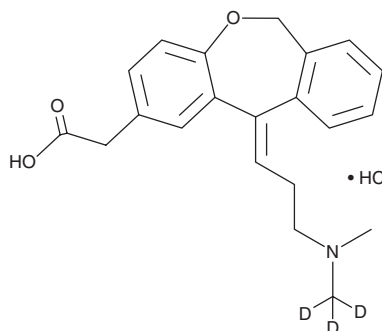
PRODUCT INFORMATION



Olopatadine-d₃ (hydrochloride)

Item No. 31918

CAS Registry No.: 1331635-21-2
Formal Name: 11Z-[3-(dimethylamino-d₃)propylidene]-6,11-dihydro-dibenz[b,e]oxepin-2-acetic acid, monohydrochloride
MF: C₂₁H₂₀D₃NO₃ • HCl
FW: 376.9
Chemical Purity: ≥95% (Olopatadine)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₃); ≤1% d₀
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Olopatadine-d₃ (hydrochloride) is intended for use as an internal standard for the quantification of olopatadine (Item No. 11999) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Olopatadine-d₃ (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the olopatadine-d₃ (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Olopatadine-d₃ (hydrochloride) is slightly soluble in methanol.

Description

Olopatadine is a histamine H₁ receptor antagonist (K_i = 41 nM).¹ It is 1,059- and 4,177-fold selective for histamine H₁ over H₂ and H₃ receptors, respectively. Olopatadine inhibits histamine-induced phosphoinositide turnover in isolated human conjunctival epithelial cells, isolated human corneal fibroblasts, and human trabecular meshwork (TM3) cells (IC₅₀s = 9.5, 19, and 39.9 nM, respectively). *In vivo*, olopatadine inhibits passive cutaneous anaphylaxis in rats (ED₅₀ = 49 µg/kg) and IgG1-mediated bronchoconstriction in ovalbumin-sensitized guinea pigs (ED₅₀ = 30 µg/kg).² Formulations containing olopatadine have been used in the treatment of allergic rhinitis and conjunctivitis, as well as in the treatment of itch in patients with well-controlled urticaria.

References

1. Sharif, N.A., Xu, S.X., and Yanni, J.M. Olopatadine (AL-4943A): Ligand binding and functional studies on a novel, long acting H₁-selective histamine antagonist and anti-allergic agent for use in allergic conjunctivitis. *J. Ocul. Pharmacol. Ther.* **12**(4), 401-407 (1996).
2. Ohshima, E., Otaki, S., Sato, H., *et al.* Synthesis and antiallergic activity of 11-(aminoalkylidene)-6,11-dihydrodibenz[b,e]oxepin derivatives. *J. Med. Chem.* **35**(11), 2074-2084 (1992).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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