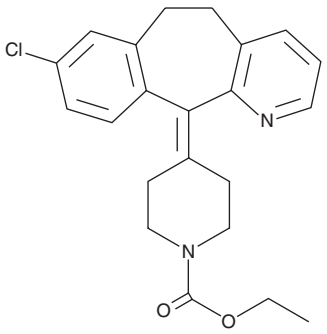
PRODUCT INFORMATION

Loratadine

Item No. 15625

CAS Registry No.: 79794-75-5
Formal Name: 4-(8-chloro-5,6-dihydro-11H-benzo[5,6]cyclohepta[1,2-b]pyridin-11-ylidene)-1-piperidinecarboxylic acid, ethyl ester
Synonym: SCH 29851
MF: $C_{22}H_{23}ClN_2O_2$
FW: 382.9
Purity: ≥98%
UV/Vis.: λ_{max}: 247 nm
Supplied as: A crystalline 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

Loratadine is supplied as a crystalline solid. A stock solution may be made by dissolving the loratadine in the solvent of choice, which should be purged with an inert gas. Loratadine is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of loratadine in ethanol and DMF is approximately 30 mg/ml and approximately 25 mg/ml in DMSO.

Loratadine is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, loratadine should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Loratadine has a solubility of approximately 0.25 mg/ml in a 1:3 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Loratadine is a non-sedating antihistamine that acts as a selective inverse agonist of peripheral histamine H_1 receptors(K_i = 35 nM).[1-3] It has been shown to inhibit the release of leukotriene C_4 (IC_{50} = 8 µM) and histamine (IC_{50} = 11 µM) from rodent mast cells and to inhibit allergic bronchospasm in guinea pigs with an ED_{50} value of 0.40 mg/kg.[4] Formulations containing loratadine have been used in the treatment of allergic rhinitis and chronic idiopathic urticaria.

References

1. Ahn, H.S. and Barnett, A. Selective displacement of [^{3}H]mepyramine from peripheral *vs*. central nervous system receptors by loratadine, a non-sedating antihistamine. *Eur. J. Pharmacol.* **127(1-2)**, 153-155 (1986).
2. Kay, G.G. and Harris, A.G. Loratadine: A non-sedating antihistamine. Review of its effects on cognition, psychomotor performance, mood and sedation. *Clin. Exp. Allergy* **29(Suppl 3)**, 147-150 (1999).
3. Barnett, A., Iorio, L.C., Kreutner, W., *et al*. Evaluation of the CNS properties of SCH 29851, a potential non-sedating antihistamine. *Agents Actions* **43(3-4)**, 149-156 (1994).
4. Kreutner, W., Chapman, R.W., Gulbenkian, A., *et al*. Antiallergic activity of loratadine, a non-sedating antihistamine. *Allergy* **42(1)**, 57-63 (1987).

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