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# Produktinformation

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- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

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## Lieferung & Zahlungsart

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## Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand


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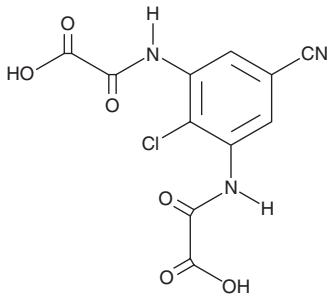
# PRODUCT INFORMATION

## Lodoxamide

*Item No. 23994*



| | |
|---|---|
| **CAS Registry No.:** | 53882-12-5 |
| **Formal Name:** | 2,2'-[(2-chloro-5-cyano-1,3-phenylene) diimino]*bis*[2-oxo-acetic acid] |
| **MF:** | $C_{11}H_6ClN_3O_6$ |
| **FW:** | 311.6 |
| **Purity:** | ≥95% |
| **Supplied as:** | A solid |
| **Storage:** | -20°C |
| **Stability:** | ≥2 years |

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

### Laboratory Procedures

Lodoxamide is supplied as a solid. A stock solution may be made by dissolving the lodoxamide in the solvent of choice, which should be purged with an inert gas. Lodoxamide is slightly soluble in DMSO.

Lodoxamide is sparingly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

### Description

Lodoxamide is a potent agonist of GPR35 with an $EC_{50}$ value of 1.61 nM in a β-arrestin-2 interaction assay using CHO-K1 cells expressing the human receptor.[1] It inhibits histamine release induced by compound 48/80 (Item No. 22173), anti-IgE, or A23187 (Item No. 11016) in isolated rat peritoneal mast cells ($IC_{50}$s = 0.1-50 µM) and inhibits A23187-induced calcium influx in mast cells.[2] It reduces antigen-induced histamine release from rat conjunctival tissue by 46% *in vitro* when used at a concentration of 10 µg/ml.[3] Lodoxamine (0.1 and 10%, w/v) reduces the immediate hypersensitivity response in rat conjunctiva *in vivo* in a dose-dependent manner and reduces mast cell degranulation in a topical ovalbumin challenge.[3,4] Formulations containing lodoxamide have been used in the treatment of vernal conjunctivitis and keratitis.

### References


1. MacKenzie, A.E., Caltabiano, G., Kent, T.C., *et al.* The antiallergic mast cell stabilizers lodoxamide and bufrolin as the first high and equipotent agonists of human and rat GPR35. *Mol. Pharmacol.* **85(1)**, 91-104 (2014).
2. Johnson, H.G. and Sheridan, A.Q. The characterization of lodoxamide, a very active inhibitor of mediator release, in animal and human models of asthma. *Agents Actions* **18(3-4)**, 301-305 (1986).
3. Yanni, J.M., Weimer, L.K., Glaser, R.L., *et al.* Effect of lodoxamide on in vitro and in vivo conjunctival immediate hypersensitivity responses in rats. *Int. Arch. Allergy. Immunol.* **101(1)**, 102-106 (1993).
4. Bayer, A., Uludağ, H.A., Sobaci, G., *et al.* Comparison of antiallergic drugs in an experimental model of ocular anaphylaxis. *Ophthalmologica* **217(2)**, 119-123 (2003).





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