Lodoxamide
Item No. 23994

CAS Registry No.: 53882-12-5
Formal Name: 2,2'-(2-chloro-5-cyano-1,3-phenylene)dilimino)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} = 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