

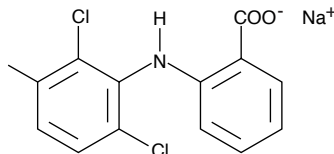
Product Information



Meclofenamate (sodium salt)

Catalog No. 70550

CAS Registry No.: 6385-02-0
Formal Name: 2-[(2,6-dichloro-3-methylphenyl)amino]-benzoic acid, monosodium salt
MF: C₁₄H₁₀Cl₂NO₂ • Na
FW: 318.1
Purity: ≥99%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid



Laboratory Procedures

For long term storage, we suggest that meclofenamate (sodium salt) be stored as supplied at -20°C. It will be stable for at least two years.

Meclofenamate (sodium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the meclofenamate (sodium salt) in an organic solvent purged with an inert gas. Meclofenamate (sodium salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of meclofenamate (sodium salt) in these solvents is approximately 100, 75, and 39 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of meclofenamate (sodium salt) can be prepared by directly dissolving the crystalline compound in aqueous buffers. The solubility of meclofenamate (sodium salt) in PBS (pH 7.2) is approximately <50 µg/ml. The solubility of meclofenamate (sodium salt) in PBS (pH 9.0) is at least 50 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Meclofenamate is a time-dependent, non-selective competitive inhibitor of COX-1 and -2. The IC₅₀ values for inhibition of human recombinant COX-1 and -2 are 1.5 and 9.7 µM, respectively for instantaneous inhibition. However, the IC₅₀ is much lower if pre-incubated with the enzyme.¹

Reference

1. Laneuville, O., Breuer, D.K., DeWitt, D.L., *et al.* Differential inhibition of human prostaglandin endoperoxide H synthases-1 and -2 by nonsteroidal anti-inflammatory drugs. *J. Pharmacol. Exp. Ther.* **271**, 927-934 (1994).

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WARNING: THIS PRODUCT IS NOT INTENDED OR APPROVED FOR HUMAN OR VETERINARY USE. USE OF THIS PRODUCT FOR HUMAN OR ANIMAL TESTING IS EXTREMELY HAZARDOUS AND MAY RESULT IN DISEASE, SEVERE INJURY, OR DEATH.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent under separate cover to the MSD supervisor at your institution.

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