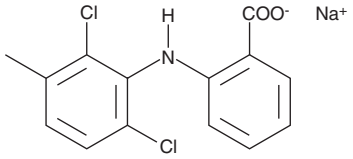
PRODUCT INFORMATION

Meclofenamate (sodium salt)

Item No. 70550

CAS Registry No.: 6385-02-0
Formal Name: 2-[(2,6-dichloro-3-methylphenyl)amino]-benzoic acid, monosodium salt
Synonym: Meclofenamic Acid
MF: $C_{14}H_{10}Cl_2NO_2 \bullet Na$
FW: 318.1
Purity: ≥98%
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

Meclofenamate (sodium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the meclofenamate (sodium salt) in the solvent of choice, which should be 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) and PBS (pH 9.0) is approximately 0.05 and 50 mg/ml, respectively. We do not recommend storing the aqueous solution for more than one day.

Description

Meclofenamate is a time-dependent, non-selective competitive inhibitor of COX-1 and -2. The IC_{50} values for inhibition of human recombinant COX-1 and -2 are 1.5 and 9.7 µM, respectively for instantaneous inhibition. However, the IC_{50} 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(2)**, 927-934 (1994).

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