

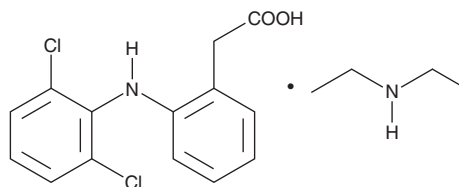
PRODUCT INFORMATION



Diclofenac (diethylamine)

Item No. 22983

CAS Registry No.: 78213-16-8
Formal Name: 2-[(2,6-dichlorophenyl)amino]-benzeneacetic acid compd. with N-monoethylethanamine
Synonyms: Diclofenac diethylammonium salt, Diclofenac diethylamine salt
MF: C₁₄H₁₁Cl₂NO₂ • C₄H₁₁N
FW: 369.3
Purity: ≥98%
UV/Vis.: λ_{max}: 283 nm
Supplied as: A crystalline solid
Storage: 4°C
Stability: ≥2 years



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

Laboratory Procedures

Diclofenac (diethylamine) is supplied as a crystalline solid. A stock solution may be made by dissolving the diclofenac (diethylamine) in the solvent of choice. Diclofenac (diethylamine) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of diclofenac (diethylamine) in DMSO is approximately 10 mg/ml and approximately 30 mg/ml in ethanol and DMF.

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 diclofenac (diethylamine) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of diclofenac (diethylamine) in PBS, pH 7.2, is approximately 2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Diclofenac is a non-steroidal anti-inflammatory drug (NSAID) that inhibits human COX-1 and -2 with IC₅₀ values of 0.9-2.7 and 1.5-20 μM, respectively.¹⁻³ Formulations containing diclofenac reduce inflammation and pain associated with osteoarthritis, rheumatoid arthritis, gout, and ankylosing spondylitis.^{1,2,4} Diclofenac (diethylamine) has increased *ex vivo* skin permeability over diclofenac (sodium salt) (Item No. 70680), and topical formulations containing diclofenac (diethylamine) have been used to decrease pain without the gastrointestinal side effects associated with oral administration in patients with rheumatoid arthritis.^{1,4}

References

1. Minghetti, P., Cilirzo, F., Casiraghi, A., *et al. J. Pharm. Sci.* **96(4)**, 814-823 (2007).
2. Laneuville, O., Breuer, D.K., DeWitt, D.L., *et al. J. Pharmacol. Exp. Ther.* **271(2)**, 927-934 (1994).
3. Barnett, J., Chow, J., Ives, D., *et al. Biochim Biophys. Acta.* **1209(1)**, 130-139 (1994).
4. Altman, R.B., Bosch, B., Brune, K., *et al. Drugs* **75(8)**, 859-877 (2015).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 09/28/2017

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM