

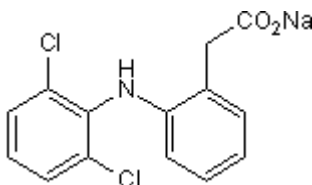
Certificate of Analysis

Product Name: Diclofenac sodium salt
CAS Number: 15307-79-6
IUPAC Name: 2-[(2,6-Dichlorophenyl)amino]benzeneacetic acid sodium salt

Catalog No.: 4454
Batch No.: 1
EC Number: 239-346-4

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₄H₁₀Cl₂NNaO₂
Batch Molecular Weight: 318.13
Physical Appearance: White solid
Solubility: water to 50 mM
DMSO to 100 mM
ethanol to 100 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 100% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	52.86	3.17	4.4
Found	52.87	3.19	4.38

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Nonsteroidal, anti-inflammatory drug (NSAID); inhibits COX-1 and COX-2 (IC₅₀ values are 0.075 μM for COX-1 and 0.038 μM for COX-2 in human whole blood assay).

Physical and Chemical Properties:

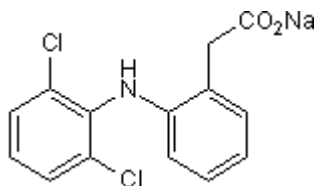
Batch Molecular Formula: C₁₄H₁₀Cl₂NNaO₂

Batch Molecular Weight: 318.13

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

water to 50 mM
DMSO to 100 mM
ethanol to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Laneuville et al (1994) Differential inhibition of human prostaglandin endoperoxide H synthases-1 and -2 by nonsteroidal anti-inflammatory drugs. *J.Pharmacol.Exp.Ther.* **271** 927. PMID: 7965814.

Bort et al (1998) Diclofenac toxicity to hepatocytes: a role for drug metabolism in cell toxicity. *J.Pharmacol.Exp.Ther.* **288** 65. PMID: 9862754.

Warner et al (1999) Nonsteroid drug selectivities for cyclo-oxygenase-1 rather than cyclo-oxygenase-2 are associated with human gastrointestinal toxicity: a full *in vitro* analysis. *Proc.Natl.Acad.Sci.USA* **96** 7563. PMID: 10377455.

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