

Certificate of Analysis

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Product Name: Indomethacin

CAS Number: 53-86-1

IUPAC Name: 1-(4-Chlorobenzoyl)-5-methoxy-2-methyl-1*H*-indole

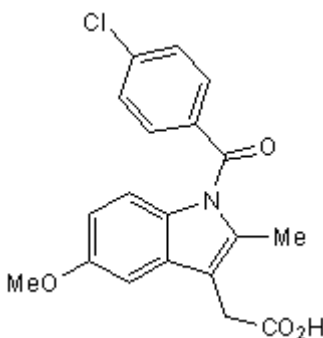
Catalog No.: 1708

EC Number: 200-186-5

Batch No.: 1

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₉H₁₆ClNO₄·¼H₂O
Batch Molecular Weight: 362.29
Physical Appearance: White solid
Solubility: ethanol to 50 mM with gentle warming
DMSO to 100 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.76 (Dichloromethane:Methanol [8:2])
Melting Point: Between 166 - 170°C
HPLC: Shows 99.5% purity
¹H NMR: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	63.78	4.51	3.91
Found	63.75	4.5	3.87

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

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Description:

Cyclooxygenase (COX) inhibitor; displays selectivity for COX-1 (IC₅₀ values are 230 and 630 nM for human COX-1 and COX-2 respectively). Widely used anti-inflammatory agent.

Physical and Chemical Properties:

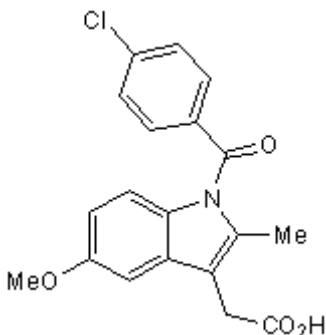
Batch Molecular Formula: C₁₉H₁₆ClNO₄·¼H₂O

Batch Molecular Weight: 362.29

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



References:

Walters and Willoughby (1965) Indomethacin, a new anti-inflammatory drug: its potential use as a laboratory tool. *J.Pathol.Bacteriol.* **90** 641. PMID: 5849618.

Shen and Winter (1977) Chemical and biological studies on indomethacin, sulindac and their analogs. *Adv Drug Res.* **12** 90. PMID: 343530.

Palomer et al (2002) Identification of novel cyclooxygenase-2 selective inhibitors using pharmacophore models. *J.Med.Chem.* **45** 1402. PMID: 11906281.

Storage: Store at RT

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

ethanol to 50 mM with gentle warming

DMSO 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.

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