

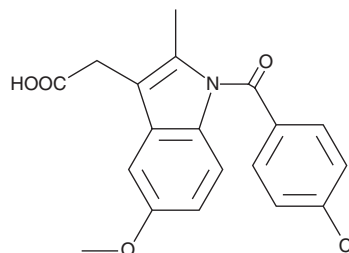
PRODUCT INFORMATION



Indomethacin

Item No. 70270

CAS Registry No.: 53-86-1
Formal Name: 1-(4-chlorobenzoyl)-5-methoxy-2-methyl-1H-indole-3-acetic acid
MF: C₁₉H₁₆ClNO₄
FW: 357.8
Purity: ≥99%
Supplied as: A crystalline solid
Storage: Room temperature
Stability: ≥4 years



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

Laboratory Procedures

Indomethacin is supplied as a crystalline solid. A stock solution may be made by dissolving the indomethacin in the solvent of choice, which should be purged with an inert gas. Indomethacin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of indomethacin in these solvents is approximately 6.73, 17.8, and 20.2 mg/ml, respectively. Indomethacin is soluble in 0.1 M Na₂CO₃ (warmed) at a concentration of approximately 0.1 mg/ml.

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 indomethacin can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of indomethacin in PBS (pH 7.2) is approximately 0.05 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Indomethacin is a non-selective COX inhibitor (IC₅₀s = 1.67 and 24.6 μM for human COX-1 and COX-2, respectively).¹ It reduces filter paper-disc induced growth of granulation tissue, a marker of inflammation, in chick chorioallantoic membranes.² Indomethacin reduces ocular inflammation induced by bovine serum in rabbits.³ It also reduces paw edema in a rat model of carrageenan-induced inflammation.⁴

References

1. Barnett, J., Chow, J., Ives, D., *et al.* Purification, characterization and selective inhibition of human prostaglandin G/H synthase 1 and 2 expressed in the baculovirus system. *Biochim. Biophys. Acta* **1209**(1), 130-139 (1994).
2. D'Arcy, P.F. and Howard, E.M. A new anti-inflammatory test, utilizing the chorio-allantoic membrane of the chick embryo. *Br. J. Pharmacol. Chemother.* **29**(3), 378-387 (1967).
3. Hanna, C. and Keatts, H.C. Indomethacin in ocular inflammation in rabbits. *Arch. Ophthalmol.* **77**(4), 554-558 (1967).
4. Winter, C.A., Riskey, E.A., and Silber, R.H. Antiinflammatory activity of indomethacin and plasma corticosterone in rats. *J. Pharmacol. Exp. Ther.* **162**(1), 196-201 (1968).

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.

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