

Indomethacin

Catalog No: tcsc2242



Available Sizes

Size: 1g

Size: 5g



Specifications

CAS No:

53-86-1

Formula:

$C_{19}H_{16}ClNO_4$

Pathway:

Immunology/Inflammation;Autophagy

Target:

COX;Autophagy

Purity / Grade:

>98%

Solubility:

H₂O :

Alternative Names:

Indometacin

Observed Molecular Weight:

357.79

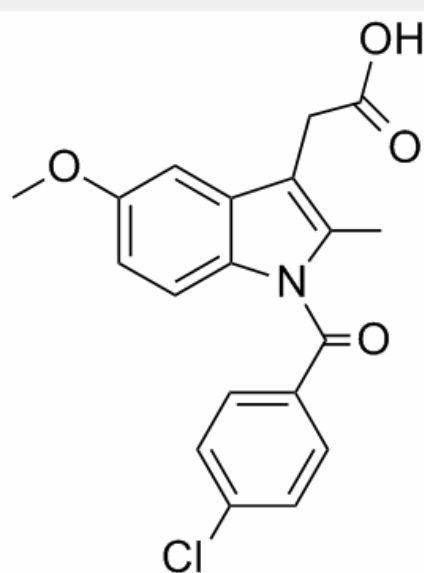
Product Description

Indomethacin is a potent and nonselective inhibitor of **COX1** and **COX2**, with **IC₅₀**s of 18 nM and 26 nM for human COX-1 and COX-2, respectively, in CHO cells.

IC50 & Target: IC50: 18 nM (Human COX-1, in CHO cells), 26 nM (Human COX-2, in CHO cells)^[1]

In Vitro: Indomethacin is a potent and nonselective inhibitor of **COX1** and **COX2**, with **IC₅₀**s of 18 nM and 26 nM for human COX-1 and COX-2, respectively, in CHO cells. Indomethacin inhibits lipopolysaccharide (LPS)-induced PGE2 production (COX-2) in a human whole blood assay with a potency (IC₅₀=0.68±0.17 μM), and suppresses coagulation-induced TXB2 production (COX-1) (IC₅₀=0.19±0.02 μM). Indomethacin blocks COX-1 with an IC₅₀ of 20±1 nM in U937 cell microsomes at a low arachidonic acid concentration (0.1 μM)^[1].

In Vivo: Indomethacin dose-dependently inhibits both the carrageenan-induced rat paw oedema (ED₅₀, 2.0 mg/kg), hyperalgesia (ED₅₀, 1.5 mg/kg), and is also effective at reversing LPS-induced pyrexia in rats (ED₅₀, 1.1 mg/kg)^[1]. Indomethacin (2.5 mg/kg, i.p) decreases the number of NeuN⁺ cells in the animals at 8 days after ET-1 injection. Indomethacin also reduces microglia/macrophage activation at 14 days. Indomethacin significantly increases the number of SVZ DCX⁺ cells/field at 14 days post stroke^[2]. Indomethacin (22.9 mg/kg, p.o.) produces 8 to 10 linear mucosal lesions extended from the fundic to pyloric area of stomach wall^[3].



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!