Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

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 **IC_{50}**s of 18 nM and 26 nM for human COX-1 and COX-2, respectively, in CHO cells.

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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 **IC_{50}**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 (IC_{50}=0.68±0.17 μM), and suppresses coagulation-induced TXB2 production (COX-1) (IC_{50} =0.19±0.02 μM). Indomethacin blocks COX-1 with an IC_{50} 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 (ED_{50}, 2.0 mg/kg), hyperalgesia (ED_{50}, 1.5 mg/kg), and is also effective at reversing LPS-induced pyrexia in rats (ED_{50}, 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].