

# Indomethacin

**Catalog No: tcsc2242** 

Available Sizes

**Size:** 1g

Size: 5g

Specifications

CAS No:

53-86-1

# Formula:

 $C_{19}H_{16}CINO_4$ 

**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**<sub>50</sub>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)<sup>[1]</sup>

In Vitro: Indomethacin is a potent and nonselective inhibitor of COX1 and COX2, with IC<sub>50</sub>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<sub>50</sub>=0.68±0.17  $\mu$ M), and suppresses coagulation-induced TXB2 production (COX-1) (IC<sub>50</sub>=0.19±0.02  $\mu$ M). Indomethacin blocks COX-1 with an IC<sub>50</sub> of 20±1 nM in U937 cell microsomes at a low arachidonic acid concentration (0.1  $\mu$ M)<sup>[1]</sup>.

*In Vivo:* Indomethacin dose-dependently inhibits both the carrageenan-induced rat paw oedema (ED<sub>50</sub>, 2.0 mg/kg), hyperalgesia (ED<sub>50</sub>, 1.5 mg/kg), and is also effective at reversing LPS-induced pyrexia in rats (ED<sub>50</sub>, 1.1 mg/kg)<sup>[1]</sup>. Indomethacin (2.5 mg/kg, i.p) decreases the number of NeuN<sup>+</sup> 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<sup>+</sup> cells/field at 14 days post stroke<sup>[2]</sup>. Indomethacin (22.9 mg/kg, p.o.) produces 8 to 10 linear mucosal lesions extended from the fundic to pyloric area of stomach wall<sup>[3]</sup>.



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