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

Ondansetron (hydrochloride dihydrate)

Catalog No: tcsc1716

Available Sizes

Size: 50mg

Size: 100mg

Size: 1g

Size: 5g

Specifications

CAS No:
103639-04-9

Formula:
$C_{18}H_{24}ClN_3O_3$

Pathway:
Neuronal Signaling;GPCR/G Protein

Target:
5-HT Receptor;5-HT Receptor

Purity / Grade:
>98%

Solubility:
H2O : 61.66 mg/mL (168.54 mM; Need warming)

Alternative Names:
GR 38032;SN 307;NSC 665799

Observed Molecular Weight:
365.85

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

Product Description

Ondansetron is a serotonin 5-HT3 receptor antagonist used mainly as anantiemetic (to treat nausea and vomiting), often following chemotherapy.

Target: 5- HT3 Receptor

IC50 Value:

in vitro: 5-HT evoked transient inward currents (EC50 = 3.4 microM; Hill coefficient = 1.8) that were blocked by the 5-HT3 receptor antagonist ondansetron (IC50 = 103 pM) [1]. The 5-HT3A receptor antagonist ondansetron (0.3 nM) reversibly inhibited the 5-HT (30 microM) signal by 70% and at 3 nM it abolished the response [2].

in vivo: Acute ondansetron administration at the lowest dose (0.1 mg/kg, IP) tested had no effect, while other doses (0.33 and 1 mg/kg, IP) produced improvements in auditory gating [3]. Different doses of ondansetron were injected intraperitoneally (i.p.) at fixed times during the day to determine both the sublethal (TD50) and lethal (LD50) doses, which were, respectively, 3.7 +/- 0.6 mg/kg and 4.6 +/- 0.5 mg/kg [4]. ondansetron (0.25-1.0 mg/kg, subcutaneously) given before the challenge dose of ethanol (2.4 g/kg, intraperitoneally) injection, significantly and dose dependently attenuated the expression of sensitization. In addition, ondansetron (1.0 mg/kg, subcutaneously) given before ethanol injection on days 1, 4, 7, and 10 significantly blocked the development (days 1, 4, 7, and 10), and expression (day 15) of sensitization to the locomotor stimulant effect of ethanol injection [5].

Toxicity: Ondansetron may be safe in lower doses used to prevent nausea and vomiting in radiation treatment or postoperatively. However, as there is a report that a lower dose of ondansetron prolonged the QT interval in healthy volunteers, this needs to be clarified by the FDA [6].