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

Chlorpromazine (hydrochloride)

Catalog No: tcsc2507

Available Sizes

Size: 1g

Size: 5g

Specifications

CAS No:
69-09-0

Formula:
$C_{17}H_{20}Cl_2N_2S$

Pathway:
GPCR/G Protein;Neuronal Signaling;Autophagy;Neuronal Signaling;GPCR/G Protein;Membrane Transporter/Ion Channel;Membrane Transporter/Ion Channel

Target:
Dopamine Receptor;Dopamine Receptor;Autophagy;5-HT Receptor;5-HT Receptor;Potassium Channel;Sodium Channel

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 60 mg/mL (168.86 mM)

Observed Molecular Weight:
355.33

Product Description

Chlorpromazine Hydrochloride is an antagonist of the **dopamine D2**, **5HT2A**, **potassium channel** and **sodium channel**. Chlorpromazine binds with D2 and 5HT2A with **K_i**s of 363 nM and 8.3 nM, respectively.

IC50 & Target: Ki: 363 nM (dopamine D_2 receptor), 8.3 nM (5-HT_{2A} receptor)[4]

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

In Vitro: Chlorpromazine (3, 10, 20, 40, and 60 μM) decreases the peak currents of hNav1.7 in a concentration-dependent manner, with IC_{50} of 25.9 μM with a Hill coefficient of 2.3. Chlorpromazine (25 μM) produces strong use-dependent inhibition of the hNav1.7 current. Chlorpromazine blocks the hNav1.7 channel, independent of calmodulin[1]. Chlorpromazine blocks HERG potassium channels with an IC_{50} value of 21.6 μM and a Hill coefficient of 1.11. Chlorpromazine (1, 10, 100 μM) blocks HERG potassium channels expressed in Xenopus laevis oocytes in a concentration-dependent manner. Chlorpromazine blocks HERG potassium channels in the activated state[5].

In Vivo: Chlorpromazine (2 mg/kg, i.p.)-induced neurobehavioural abnormalities (NAs) are characterized by significant increase in cataleptic behaviour and loared spontaneous activity reaction time in mice[2]. Chlorpromazine (1 or 5 mg/kg, i,p.) prevents ketamine (KET) from increasing average spectral power of delta and gamma-high bands on the 5th and 10th days of treatment in rats[3].