Web: www.taiclone.com
Tel: +886-2-2735-9682
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Pimozide

Catalog No: tcsc0012921

Available Sizes

Size: 50mg

Specifications

CAS No:
2062-78-4

Formula:
$C_{28}H_{29}F_2N_3O$

Pathway:
GPCR/G Protein;Neuronal Signaling;GPCR/G Protein;JAK/STAT Signaling;Stem Cell/Wnt

Target:
Dopamine Receptor;Dopamine Receptor;Adrenergic Receptor;STAT;STAT

Purity / Grade:
>98%

Solubility:
DMSO : 33.33 mg/mL (72.21 mM; Need ultrasonic); H2O :

Alternative Names:
R6238

Observed Molecular Weight:
461.55

Product Description

Pimozide is a **dopamine receptor** antagonist, with **K_i**s of 1.4 nM, 2.5 nM and 588 nM for dopamine D2, D3 and D1 receptors, respectively, and also has affinity at **α1-adrenoceptor**, with a **K_i** of 39 nM; Pimozide also inhibits **STAT3** and **STAT5**.

IC50 & Target: Ki: 1.4 nM (Dopamine D2 receptor), 2.5 nM (Dopamine D3 receptor), 588 nM (Dopamine D1 receptor), 39 nM (α1-adrenoceptor), 310 nM (5-HT1A)

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[1]

STAT3[2], STAT5[3]

In Vitro: Pimozide is a dopamine receptor antagonist, with K_is of 1.4 nM, 2.5 nM and 588 nM for dopamine D2, D3 and D1 receptors, respectively; also has affinity at α1-adrenoceptor and 5-HT1A, with K_is of 39 nM and 310 nM, respectively[1]. Pimozide acts as an inhibitor of STAT3. Pimozide (0-15 μM) shows inhibitory of the proliferation of U2OS cells, with IC_{50} value at 24, 48, and 72 h of 22.16 ± 2.54, 17.49 ± 1.14 and 13.78 ± 0.34 μM, respectively. Pimozide (10 μM) inhibits the colony- and sphere-forming abilities of osteosarcoma cells. Pimozide (15 μM) induces G0/G1 phase cell cycle arrest, suppresses the extracellular signal-regulated kinase (Erk) signaling to inhibit cell viability, and produces ROS generation through inhibiting antioxidant enzyme gene catalase expression in osteosarcoma cells[2]. Pimozide acts as an inhibitor of STAT5. Pimozide reduces the expression of endogenous STAT5 target genes, and decreases STAT5 tyrosine phosphorylation[3].