

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

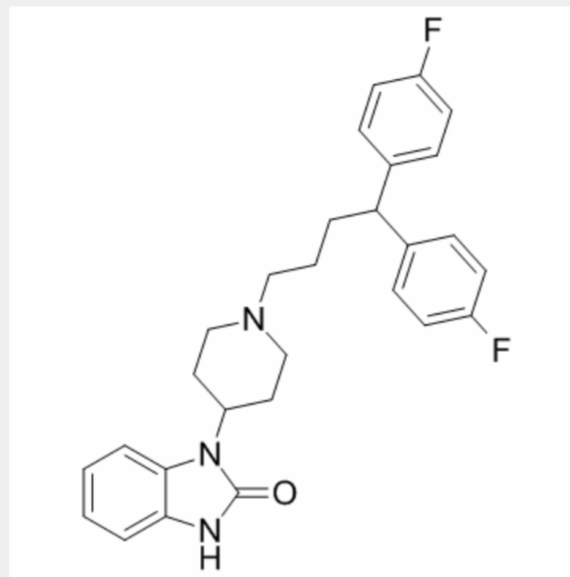
Pimozide is a **dopamine receptor** antagonist, with **K_i**s of 1.4 nM, 2.5 nM and 588 nM for dopamine D₂, D₃ and D₁ receptors, respectively, and also has affinity at **α1-adrenoceptor**, with a **K_i** of 39 nM; Pimozide also inhibits **STAT3** and **STAT5**.

IC₅₀ & Target: K_i: 1.4 nM (Dopamine D₂ receptor), 2.5 nM (Dopamine D₃ receptor), 588 nM (Dopamine D₁ receptor), 39 nM (α₁-adrenoceptor), 310 nM (5-HT_{1A})

[1]

STAT3^[2], STAT5^[3]

In Vitro: 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; also has affinity at α 1-adrenoceptor and 5-HT1A, with K_i s of 39 nM and 310 nM, respectively^[1]. Pimozide acts as an inhibitor of STAT3. Pimozide (0-15 μ M) 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 μ M, respectively. Pimozide (10 μ M) inhibits the colony- and sphere-forming abilities of osteosarcoma cells. Pimozide (15 μ M) 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].



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