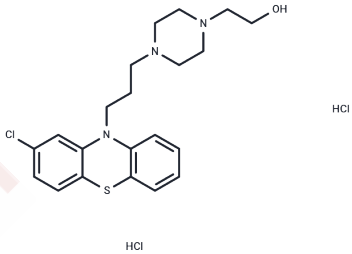
Data Sheet (Cat.No.T63115)

TargetMol

Perphenazine dihydrochloride

Chemical Properties



CAS No. : 2015-28-3

Formula: C21H28Cl3N3OS

Molecular Weight: 476.89

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Perphenazine dihydrochloride is an orally active dopamine receptor and histamine-1 receptor antagonist that acts on D2 (Ki: 0.56 nM), D3 (Ki: 0.43 nM), and 5-HT2A (Ki: 0.6 nM) receptors, and also binds Alpha-1A adrenergic receptors. It can induce apoptosis, inhibit cancer cell proliferation, and is used to study psychiatric disorders, cancer, and inflammation.
Targets(IC50)	Apoptosis,5-HT Receptor,Adrenergic Receptor,Autophagy,Histamine Receptor, Dopamine Receptor
In vitro	In L02 cells, Perphenazine dihydrochloride (10-100 μM ; 12,24,48 h) could inhibit cell viability in a concentration and time-dependent manner[2].
In vivo	In ICR mice, Perphenazine dihydrochloride (10, 30, 60, 120, 180 mg / kg ; oral gavage, every other day for 21 days) increased histological injury and aminotransferases compared with control[2].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.0969 mL	10.4846 mL	20.9692 mL
5 mM	0.4194 mL	2.0969 mL	4.1938 mL
10 mM	0.2097 mL	1.0485 mL	2.0969 mL
50 mM	0.0419 mL	0.2097 mL	0.4194 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Richtand NM, et al. Dopamine and serotonin receptor binding and antipsychotic efficacy. Neuropsychopharmacology. 2007 Aug;32(8):1715-26.
Lei Tao, et al. Lysosomal membrane permeabilization mediated apoptosis involve in perphenazine-induced hepatotoxicity in vitro and in vivo. Toxicol Lett. 2022 Jul 29;367:76-87.
Min-Jeong Heo, et al. Perphenazine Attenuates the Pro-Inflammatory Responses in Mouse Models of Th2-Type Allergic Dermatitis. Int J Mol Sci. 2020 May 3;21(9):3241.
Michał Otręba, et al. Perphenazine and prochlorperazine decrease glioblastoma U-87 MG cell migration and invasion: Analysis of the ABCB1 and ABCG2 transporters, E-cadherin, α-tubulin and integrins (α3, α5, and β1) levels. Oncol Lett. 2022 Jun;23(6):182.

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