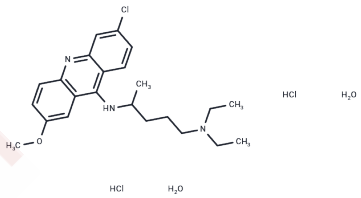
Data Sheet (Cat.No.T22412)

TargetMol

Quinacrine Dihydrochloride Dihydrate

Chemical Properties



CAS No. : 6151-30-0

Formula: C23H36Cl3N3O3

Molecular Weight: 508.91

Storage: Keep away from direct sunlight
Store at -20°C
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Quinacrine Dihydrochloride Dihydrate is an orally available antimalarial agent capable of crossing the blood-brain barrier. It exhibits anticancer activity by inhibiting WNT/TCF and topoisomerase, inducing autophagy and apoptosis, and activating p53. Quinacrine is an acridine dye derivative used for DNA and RNA staining in fixed cells (Ex/Em=436/525 nm).
Targets(IC50)	Apoptosis,Antibiotic,Parasite,Autophagy,p53,Topoisomerase,Wnt/beta-catenin
In vitro	Quinacrine Dihydrochloride Dihydrate inhibits the growth of SGC-7901 cells at concentrations of 5-20 μM with an exposure time of 24 hours [1]. Quinacrine Dihydrochloride Dihydrate induces apoptosis in SGC-7901 cells at concentrations of 7.5 and 15 μM with an exposure time of 24 hours; this apoptotic process is associated with the mitochondrial-dependent signaling pathway and involves upregulation of p53 protein and activation of the caspase-3 protein pathway [1]. Treatment of cells with Quinacrine Dihydrochloride Dihydrate at a concentration of 15 μM for 24 hours significantly increases the levels of pro-apoptotic proteins (including cytochrome c, Bax protein, and p53 protein) while reducing the level of the anti-apoptotic protein Bcl-2, thereby shifting the Bax/Bcl-2 ratio in a direction favorable to
In vivo	Quinacrine Dihydrochloride Dihydrate (100 mg/kg, administered via gavage, three times per week for two consecutive weeks) reduced the proportion of homo sapiens-derived tumor cells in female severe combined immunodeficiency (SCID) mice with acute myeloid leukemia (AML)-PS models to 2.2%, and extended the median survival time of the mice to 46 days [2].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.965 mL	9.8249 mL	19.6498 mL
5 mM	0.393 mL	1.965 mL	3.930 mL
10 mM	0.1965 mL	0.9825 mL	1.965 mL
50 mM	0.0393 mL	0.1965 mL	0.393 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

Xiaoyang Wu, et al. Quinacrine Inhibits Cell Growth and Induces Apoptosis in Human Gastric Cancer Cell Line SGC-7901. Curr Ther Res Clin Exp. 2012 Feb;73(1-2):52-64.
Anna Eriksson, et al. Towards repositioning of quinacrine for treatment of acute myeloid leukemia - Promising synergies and in vivo effects. Leuk Res. 2017 Dec;63:41-46.