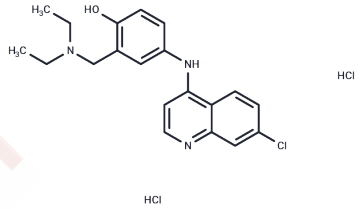
Data Sheet (Cat.No.T22242)

TargetMol

Amodiaquine hydrochloride

Chemical Properties



CAS No. :	69-44-3
Formula:	C20H24Cl3N3O
Molecular Weight:	428.78
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	Amodiaquine dihydrochloride (Amodiaquin dihydrochloride), a member of the 4-aminoquinoline class, is an antimalarial agent that also acts as a potent oral histamine N-methyltransferase inhibitor with a K i value of 18.6 nM. Additionally, it functions as a Nurr1 agonist, targeting the Nurr1-LBD (ligand binding domain) with an EC 50 of approximately 20 μM, demonstrating anti-inflammatory effects [1] [2] [3] [4] [5].
Targets(IC50)	Others,Histone Methyltransferase,Parasite,NR4A
In vitro	Amodiaquine treatment ranging from 10-20 μM for 4 hours significantly reduces the expression of proinflammatory cytokines (IL-1β, interleukin-6, TNF-α, and iNOS) induced by LPS in a dose-dependent manner. Additionally, at a concentration of 5 μM over 24 hours, Amodiaquine markedly diminishes 6-OHDA-induced cell death in primary dopamine neurons, as evidenced by the preservation of TH+ neuron numbers and dopamine uptake. This neuroprotective effect is corroborated in rat PC12 cells. RT-PCR results from primary microglia treated with 10 μM, 15 μM, and 20 μM Amodiaquine for 4 hours further confirm the suppression of LPS-induced proinflammatory cytokine expression, demonstrating Amodiaquine's potent anti-inflammatory and neuroprotective activities.
In vivo	Amodiaquine administration (40 mg/kg; intraperitoneal injection; daily for 3 days) in male ICR mice aged 8-10 weeks with induced intracerebral hemorrhage (ICH) significantly diminished the activation of perihematomal microglia/macrophages and astrocytes. Furthermore, the treatment effectively suppressed ICH-induced mRNA expression levels of IL-1β, CCL2, and CXCL2, concurrently ameliorating the motor dysfunction observed in these animals.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3322 mL	11.661 mL	23.322 mL
5 mM	0.4664 mL	2.3322 mL	4.6644 mL
10 mM	0.2332 mL	1.1661 mL	2.3322 mL
50 mM	0.0466 mL	0.2332 mL	0.4664 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.