

## Quinine sulfate dihydrate

### Chemical Properties

CAS No. : 6119-70-6

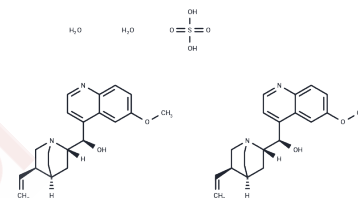
Formula: C<sub>40</sub>H<sub>58</sub>N<sub>4</sub>O<sub>12</sub>S

Molecular Weight: 818.97

Keep away from direct sunlight

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	Quinine sulfate dihydrate plays a major role in potassium channel blockers. It is also used as an antimalarial, anticholinergic, antihypertensive and a hypoglycemic agent. It inhibits mitochondrial ATP-regulated potassium channel. It is also used to study the metabolism of biocrystallized heme, hemozoin, in malarial parasites and to study the toxicity of heme (FP)-complexes.
Targets(IC50)	Anti-infection,Others,Parasite,Potassium Channel
In vitro	Quinine is an alkaloid antimalarial agent that has MIC values ranging from 10 to 500 nM for 60 Thai isolates of <i>P. falciparum</i> . It inhibits hemozoin formation in purified trophozoites, leading to an increase in free heme, similar to the mechanism of action of chloroquine[1].
In vivo	In mice, quinine reduces <i>P. berghei</i> parasite load in the blood with a minimum effective dose (MED) of 150 mg/kg [2].

### Solubility Information

Solubility	DMSO: 8.19 mg/mL (10 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
------------	--

### Preparing Stock Solutions

---

	1mg	5mg	10mg
1 mM	1.221 mL	6.1052 mL	12.2105 mL
5 mM	0.2442 mL	1.221 mL	2.4421 mL
10 mM	0.1221 mL	0.6105 mL	1.221 mL
50 mM	0.0244 mL	0.1221 mL	0.2442 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

Thaithong S, et al. Susceptibility of Plasmodium falciparum to five drugs: an in vitro study of isolates mainly from Thailand. *Trans R Soc Trop Med Hyg.* 1983;77(2):228-31.

THURSTON JP. The action of antimalarial drugs in mice infected with Plasmodium berghei. *Br J Pharmacol Chemother.* 1950 Sep;5(3):409-16.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481