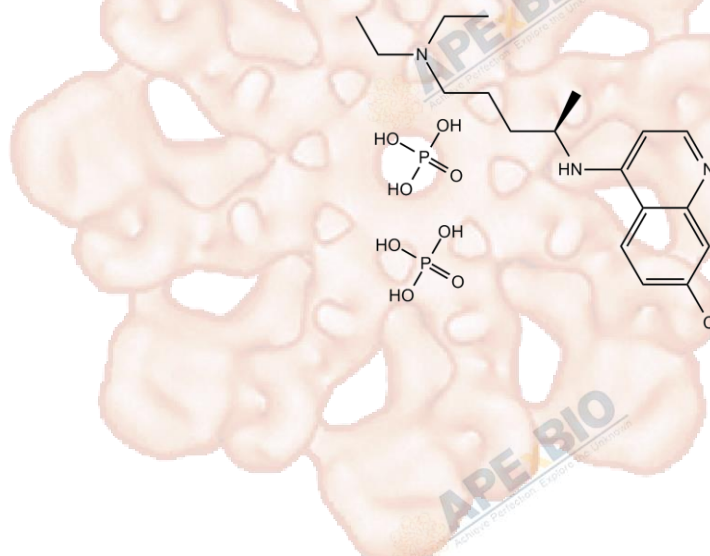


Chloroquine diphosphate

Cat. No.:	A8628
CAS No.:	50-63-5
Formula:	C ₁₈ H ₂₆ ClN ₃ ·2H ₃ PO ₄
M.Wt:	515.86
Synonyms:	
Target:	Ubiquitination/ Proteasome
Pathway:	Autophagy
Storage:	Desiccate at RT



Solvent & Solubility

insoluble in DMSO; insoluble in EtOH; ≥ 106.06 mg/mL in H₂O

In Vitro

Preparing Stock Solutions	Solvent	Mass		
		1mg	5mg	10mg
	Concentration			
	1 mM	1.9385 mL	9.6926 mL	19.3851 mL
	5 mM	0.3877 mL	1.9385 mL	3.8770 mL
	10 mM	0.1939 mL	0.9693 mL	1.9385 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary

Antimalarial drug, TLR7 TLR9 inhibitor

IC₅₀ & Target

In Vitro

Cell Viability Assay

Cell Line:	Mouse breast cancer 4T1 cells
Preparation method:	The solubility of this compound in DMSO is limited. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20 °C for several months.
Reacting conditions:	3.125, 6.25, 12.5, 25, 50 and 100 μ M; 24, 48 and 72 hrs

	Applications:	According to the results of the MTT assay, Chloroquine Diphosphate dose- and time-dependently inhibited proliferation of 4T1 cells.
In Vivo	Animal experiment	
	Animal models:	4T1 tumor-bearing BALB/c mice
	Dosage form:	25 and 50 mg/kg; i.p.; q.d., for 28 days
	Applications:	Chloroquine Diphosphate treatment at the doses of 25 and 50 mg/kg significantly reduced the rates of primary tumor growth. In addition, 30% and 60% of mice in the 25 and 50 mg/kg Chloroquine Diphosphate-treated groups still survived on 61st day.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

1. White SM, Avantaggiati ML, et al. "YAP/TAZ Inhibition Induces Metabolic and Signaling Rewiring Resulting in Targetable Vulnerabilities in NF2-Deficient Tumor Cells." *Dev Cell*. 2019 May 6;49(3):425-443.e9.PMID:31063758
2. Shan M, Qin J, et al. "Autophagy suppresses isoprenaline-induced M2 macrophage polarization via the ROS/ERK and mTOR signaling pathway." *Free Radic Biol Med*. 2017 Jun 21. pii: S0891-5849(17)30594-4.PMID:28647611

See more customer validations on www.apexbt.com.

References

- [1]. Jiang, P.D., et al., Antitumor and antimetastatic activities of chloroquine diphosphate in a murine model of breast cancer. *Biomed Pharmacother*, 2010. 64(9): p. 609-14.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APEX BIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

APEx BIO Technology

www.apexbt.com

7505 Fannin street, Suite 410, Houston, TX 77054.

Tel: +1-832-696-8203 | Fax: +1-832-641-3177 | Email: info@apexbt.com

