Chloroquine diphosphate salt

Product Number C 6628
Store at Room Temperature RT

Product Description
Molecular Formula: C₁₈H₂₆ClN₃ • 2H₃PO₄
Molecular Weight: 515.9
CAS Number: 50-63-5
Melting point: 193 °C
Extinction coefficient: EᵌM = 15 (257 nm), 16.6 (329 nm), 18.9 (343 nm)(0.01 M HCl)¹
pKₐ: 8.4 and 10.8 (for chloroquine base at 20 °C)²

This product is a member of the quinoline family with multiple applications. It was originally used as an antimalarial compound.³ It kills the erythrocytic forms of malaria parasites at all stages of development, but does not affect the sporozoites.

This compound is also an antibiotic.⁴ It can be used at 200 mg/ml (PBS, pH 5.0) to dissociate antigen-antibody complexes without denaturing red blood cell antigens.⁵

A more recent usage is for DNA transfection.⁷ When used at 100 µM, it intercalates into DNA, increasing tranfection efficiency.⁸

Precautions and Disclaimer
For Laboratory Use Only. Not for drug, household or other uses.

Preparation Instructions
This product is soluble in water (50 mg/ml). A 10% solution in water has a pH of 3.5-4.5. A 7.15% solution in water is iso-osmotic with serum. It is practically insoluble in alcohol, chloroform or ether.⁹

Storage/Stability
Solutions can be sterilized by autoclaving or by filtration through a 0.2 µm membrane. Solutions of pH 4-6 are stable when heated, but are sensitive to light.³

References

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