

Product Information

Chloroquine diphosphate salt

C6628

Store at room temperature.

Product Description

Molecular Formula: $C_{18}H_{26}ClN_3 \cdot 2H_3PO_4$

Molecular Weight: 515.9

CAS Number: 50-63-5

Melting point: 192-198 °C

Extinction coefficient: $E^{1\%}_{1cm} = 15$ (257 nm),
16.6 (329 nm), 18.9 (343 nm) (0.01 M HCl)¹

pK_a : 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.^{4,5} It can be used at 200 mg/mL (PBS, pH 5.0) to dissociate antigen antibody complexes without denaturing red blood cell antigens.⁶

A more recent usage is for DNA transfection.^{7,8} When used at 100 μ M, it intercalates into DNA, increasing transfection efficiency.⁹

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.³

Storage/Stability

Solutions can be sterilized by autoclaving or by filtration through a 0.2 μ m membrane. Solutions of pH 4-6 are stable when heated but are sensitive to light.³

References

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