

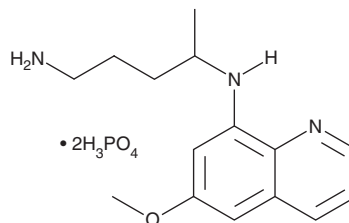
# PRODUCT INFORMATION



## Primaquine (phosphate)

Item No. 18223

**CAS Registry No.:** 63-45-6  
**Formal Name:** N<sup>4</sup>-(6-methoxy-8-quinolinyl)-1,4-pentanediamine, diphosphate  
**Synonym:** NSC 149765  
**MF:** C<sub>15</sub>H<sub>21</sub>N<sub>3</sub>O • 2H<sub>3</sub>PO<sub>4</sub>  
**FW:** 455.3  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 259, 349 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Primaquine (phosphate) is supplied as a crystalline solid. A stock solution may be made by dissolving the primaquine (phosphate) in the solvent of choice, which should be purged with an inert gas. Primaquine (phosphate) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of primaquine (phosphate) in these solvents is approximately 10 and 0.5 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of primaquine (phosphate) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of primaquine (phosphate) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Primaquine is an established antimalarial drug used in the treatment of persistent liver forms of *P. vivax* or *P. ovale* infection for its ability to kill late-stage gametocytes and hypnozoites.<sup>1,2</sup> In historical terms, this aminoquinoline was the stimulus for the discovery of glucose-6-phosphate (G6P) dehydrogenase deficiency as it induced hemolytic anemia in patients lacking the G6P-metabolizing enzyme.<sup>3</sup>

### References

1. Askling, H.H., Bruneel, F., Burchard, G., *et al.* Management of imported malaria in Europe. *Malar. J.* **11**, 1-15 (2012).
2. Wang, Z., Liu, M., Liang, X., *et al.* A flow cytometry-based quantitative drug sensitivity assay for all *Plasmodium falciparum* gametocyte stages. *PLoS One* **9(4)**, 1-9 (2014).
3. Beutler, E. Glucose-6-phosphate dehydrogenase deficiency: A historical perspective. *Blood* **111(1)**, 16-24 (2008).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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