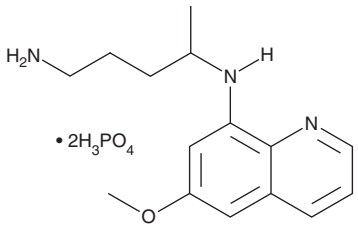
PRODUCT INFORMATION

Primaquine (phosphate)

Item No. 18223

CAS Registry No.:	63-45-6
Formal Name:	N^4-(6-methoxy-8-quinolinyl)-1,4-pentanediamine, diphosphate
Synonym:	NSC 149765
MF:	$C_{15}H_{21}N_3O \bullet 2H_3PO_4$
FW:	455.3
Purity:	≥95%
UV/Vis.:	λ_{max}: 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.[1,2] 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.[3]

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).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM