

Catalog # 10-2473 Chloroquine phosphate

CAS# 50-63-5

 N^4 -(7-Chloro-4-quinolinyl)- N^1 , N^1 -dimethyl-1,4-pentanediamine, diphosphate Lot # X101521

Antimalarial drug. Inhibits autophagy in a variety of cell lines.¹ Induces cell death in breast cancer cell lines and displays antitumor and antimetastatic activity in mouse models of breast cancer.² Eliminates cancer stem cells via deregulation of JAK2 and DNMT1.³ Displays synergy when combined with the Raf inhibitor, vemurafenib, in brain tumors.⁴ Cell permeable and active *in vivo*.

- 1) Frieboes et al. (2014), Chloroquine-mediated cell death in metastatic pancreatic adenocarcinoma through inhibition of autophagy, JOP, **15** 189
- 2) Jiang et al. (2010), Antitumor and antimetastatic activities of chloroquine diphosphate in a murine model of breast cancer, Biomed. Pharmacother., **64** 609
- 3) Choi et al. (2014), Chloroquine eliminates cancer stem cells through deregulation of Jak2 and DNMT1; Stem Cells, **32** 2309.
- 4) Mulcahy Levy et al. (2014), Autophagy inhibition improves chemosensitivity in BRAFV600E brain tumors; Cancer Discov., 4 773

PHYSICAL DATA

Molecular Weight: 515.87

Molecular Formula: C₁₈H₂₆ClN₃ · 2H₃PO₄

Purity: 98% by TLC

NMR: (Conforms)

Solubility: Water (up to 25 mg/ml)

Physical Description: White solid

Storage and Stability: Store as supplied at room temperature for up to 2 years from the date of purchase. Solutions in

distilled water may be stored at -20°C for up to 3 months.

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