

Catalog # 10-1379 Hydroxychloroquine

CAS# 747-36-4

7-Chloro-4-[4-(N-ethyl-N-b-hydroxyethylamino)-1-methylbutylamino]quinolone sulfate Lot # X104702

A lysosomotropic agent which inhibits autophagy and triggers apoptosis in a variety of cell types^{1,2}. Augments the anticancer activity of DNA-damaging chemotherapy³. Anti-inflammatory activity. Decreases cell surface expression of TNF α receptors in U937 cells⁴. Has been used to treat alopecia successfully⁵. Clinically useful antimalaria agent. Cell permeable and active *in vivo*.

- 1) Boya et al. (2005), Inhibition of macroautophagy triggers apoptosis; Mol. Cell Biol., 25 1025
- 2) Xie et al. (2013), Coordinate autophagy and mTOR pathway inhibition enhances cell death in melanoma; PLoS One, **8** e55096
- 3) Pan et al. (2011), Targeting autophagy augments in vitro and in vivo antimyeloma activity of DNA-damaging chemotherapy; Clin. Cancer Res., **150** 3248
- 4) Jeong et al. (2002), Chloroquine decreases cell-surface expression of tumor necrosis factor receptors in human histiocytic U-937 cells; Immunology, **105** 83
- 5) Stephan et al. (2013), Successful treatment of alopecia totalis with hydroxychloroquine: report of 2 cases; J. Am. Acad. Dermatol., **68** 1048

PHYSICAL DATA

Molecular Weight: 433.96

Molecular Formula: C₁₈H₂₆ClN₃O ⋅ H₂SO₄

Purity: 98% by TLC

NMR: (Conforms)

Solubility: Water (up to 40 mg/ml), not soluble in DMSO.

Physical Description: White solid

Storage and Stability: Store as supplied desiccated 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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