

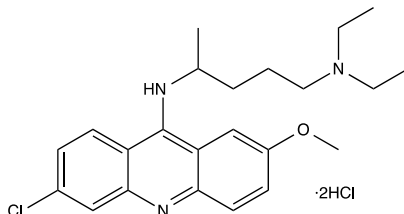
Catalog # 10-4251

Quinacrine hydrochloride

CAS# 69-05-6

6-Chloro-9-(4-diethylamino-1-methylbutyl)amino-2-methoxyacridine dihydrochloride

Lot # FBS1079



Quinacrine is an antiprotozoan drug used for malaria and giardiasis and has recently been investigated in treating lupus, as an anticancer agent, inflammation, and as a female sterilization agent.¹ It has been found to have synergistic effects with vorinostat in the treatment of T-cell acute lymphoblastic leukemia via mitophagy blockage and an increase in ROS.² Quinacrine displayed antitumor effects in an intestinal cancer mouse model and HCT116 p53^{-/-} xenografts *via* reduction in Chk1/2 expression and cell death induction in the G₂-M phase.³ It promotes autophagic cell death in ovarian cancer cells via downregulation of p62/SQSTM1.⁴ Quinacrine is also an inhibitor of phospholipase A₂.⁵

- 1) Ehsanian *et al.* (2011), *Beyond DNA binding – a review of the potential mechanisms mediating quinacrine's therapeutic activities in parasitic infections, inflammation, and cancers*; Cell Commun.Signal. **9** 13
- 2) Jing *et al.* (2018), *Vorinostat and quinacrine have synergistic effects in T-cell acute lymphoblastic leukemia through reactive oxygen species increase and mitophagy inhibition*; Cell Death Disease **9** 589
- 3) Park *et al.* (2018), *Therapeutic Effect of Quinacrine, an Antiprotozoan Drug, by Selective Suppression of p-CHK1/2 in p53-Negative Malignant Cancers*; Mol.Cancer Res. **16** 935
- 4) Khurana *et al.* (2015), *Quinacrine promotes autophagic cell death and chemosensitivity in ovarian cancer and attenuates tumor growth*; Oncotarget **6** 36354
- 5) Chan *et al.* (1982), *Biphasic modulation of platelet phospholipase A2 activity and platelet aggregation by mepacrine (quinacrine)*; Biochim.Biophys.Acta **713** 170

PHYSICAL DATA

Molecular Weight:	472.88
Molecular Formula:	C ₂₃ H ₃₀ ClN ₃ O·2HCl
Purity:	>98% by HPLC
	NMR: (Conforms)
Solubility:	Water (>25 mg/mL), DMSO (>10 mg/mL)
Physical Description:	Yellow solid
Storage and Stability:	Store as supplied at -20°C for up to 1 year from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 1 month. Make solutions in water fresh daily.

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