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# DATASHEET

Mefloquine hydrochloride

#### **Product overview**

Name	Mefloquine hydrochloride
Cat No	HB9555
Biological action	Blocker
Purity	>98%
Description	Cx36 and Cx50 gap channel blocker. Antimalarial, antischistosomal and antiviral.

## **Biological Data**

**Biological description** 

Cx36 and Cx50 gap channel blocker (IC<sub>50</sub> values are 0.3 and 1.1  $\mu$ M, respectively). Other gap junctions (e.g. Cx43, Cx32, and Cx26) are only affected at concentrations 10-100 fold higher. In neocortical slices, mefloquine blocks gap junctional coupling between interneurons with minimal nonspecific actions.

Also shows antimalarial action. Inhibits the 80S ribosome of *Plasmodium falciparum* to block protein synthesis.

Additionally shows antischistosomal and antiviral actions and has recently been investigated as part of COVID-19 compound repurposing.

## **Solubility & Handling**

Storage instructions	+4°C
Solubility overview	Soluble in DMSO (50 mM), and in ethanol (100 mM)
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not
	for human or veterinary use

## **Chemical Data**

Chemical name Molecular Weight Chemical structure

Molecular Formula CAS Number PubChem identifier SMILES InChi

InChiKey MDL number (S)-[2,8-bis(trifluoromethyl)quinolin-4-yl]-[(2R)-piperidin-2-yl]methanol;hydrochloride 414.77



C<sub>17</sub>H<sub>16</sub>F<sub>6</sub>N<sub>2</sub>O · HCl 51773-92-3 65329 C1CCNC(C1)C(C2=CC(=NC3=C2C=C3C(F)(F)F)C(F)(F)F)O.Cl InChI=1S/C17H16F6N2O.CIH/c18-16(19,20)11-5-3-4-9-10(15(26)12-6-1-2-7-24-12)8-13(17(21,22)2 3)25-14(9)11;/h3-5,8,12,15,24,26H,1-2,6-7H2;1H/t12-,15+;/m1./s1 WESWYMRNZNDGBX-YLCXCWDSSA-N MFCD00797519

## References

#### Identification of Antiviral Drug Candidates against SARS-CoV-2 from FDA-Approved Drugs

Jeon S *et al* (2020) Antimicrob Agents Chemother 64
PubMedID 32366720

#### Potent block of Cx36 and Cx50 gap junction channels by mefloquine

Cruikshank SJ *et al* (2004) Proc Natl Acad Sci U S A 101(33) **PubMedID** 15297615

#### Mefloquine targets the Plasmodium falciparum 80S ribosome to inhibit protein synthesis

 Wong W et al (2017) Nat Microbiol 2

 PubMedID
 28288098