

COVID-19 is an emerging, rapidly evolving situation.[Public health information \(CDC\)](#)[Research information \(NIH\)](#)[SARS-CoV-2 data \(NCBI\)](#)[Prevention and treatment information \(HHS\)](#)

FULL TEXT LINKS

[> Biochem Biophys Res Commun.](#) 2004 Oct 8;323(1):264-8. doi: 10.1016/j.bbrc.2004.08.085.

In vitro inhibition of severe acute respiratory syndrome coronavirus by chloroquine

Els Keyaerts ¹, Leen Vijgen, Piet Maes, Johan Neyts, Marc Van Ranst

Affiliations

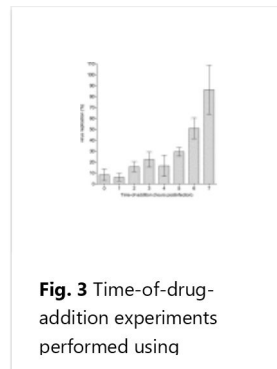
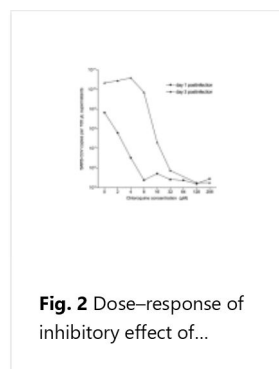
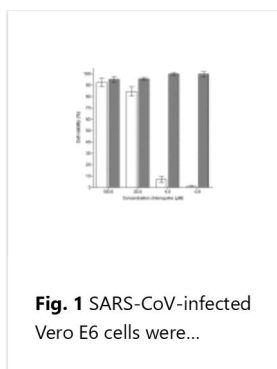
PMID: 15351731 PMID: [PMC7092815](#) DOI: [10.1016/j.bbrc.2004.08.085](#)[Free PMC article](#)

Abstract

We report on chloroquine, a 4-amino-quinoline, as an effective inhibitor of the replication of the severe acute respiratory syndrome coronavirus (SARS-CoV) in vitro. Chloroquine is a clinically approved drug effective against malaria. We tested chloroquine phosphate for its antiviral potential against SARS-CoV-induced cytopathicity in Vero E6 cell culture. Results indicate that the IC₅₀ of chloroquine for antiviral activity (8.8 +/- 1.2 microM) was significantly lower than its cytostatic activity; CC₅₀ (261.3 +/- 14.5 microM), yielding a selectivity index of 30. The IC₅₀ of chloroquine for inhibition of SARS-CoV in vitro approximates the plasma concentrations of chloroquine reached during treatment of acute malaria. Addition of chloroquine to infected cultures could be delayed for up to 5h postinfection, without an important drop in antiviral activity. Chloroquine, an old antimalarial drug, may be considered for immediate use in the prevention and treatment of SARS-CoV infections.

Copyright 2004 Elsevier Inc.

Figures



Related information

[MedGen](#)[PubChem Compound](#)[PubChem Compound \(MeSH Keyword\)](#)[PubChem Substance](#)**FOLLOW NCBI**

Follow NLM

National Library of Medicine
8600 Rockville Pike
Bethesda, MD 20894[Copyright](#)
[FOIA](#)
[Privacy](#)[Help](#)
[Accessibility](#)
[Careers](#)

NLM NIH HHS USA.gov

LinkOut - more resources

Full Text Sources

[Elsevier Science](#)

[Europe PubMed Central](#)

[PubMed Central](#)

Other Literature Sources

[The Lens - Patent Citations](#)

Medical

[ClinicalTrials.gov](#)

Miscellaneous

[NCI CPTAC Assay Portal](#)