



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Lieferung & Zahlungsart

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### Zuschläge

- Mindermengenzuschlag
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- Expressversand

### SZABO-SCANDIC HandelsgmbH

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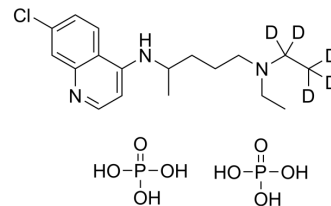
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## Chloroquine-d<sub>5</sub> diphosphate

<b>Cat. No.:</b>	HY-17589S
<b>CAS No.:</b>	1854126-42-3
<b>Molecular Formula:</b>	C <sub>18</sub> H <sub>27</sub> D <sub>5</sub> ClN <sub>3</sub> O <sub>8</sub> P <sub>2</sub>
<b>Molecular Weight:</b>	520.89
<b>Target:</b>	Toll-like Receptor (TLR); Autophagy; HIV; SARS-CoV; Parasite; Antibiotic; Isotope-Labeled Compounds
<b>Pathway:</b>	Immunology/Inflammation; Autophagy; Anti-infection; Others
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Chloroquine-d <sub>5</sub> (diphosphate) is the deuterium labeled Chloroquine (phosphate). Chloroquine phosphate is an antimalarial and anti-inflammatory agent widely used to treat malaria and rheumatoid arthritis. Chloroquine phosphate is an autophagy and toll-like receptors (TLRs) inhibitor. Chloroquine phosphate is highly effective in the control of SARS-CoV-2 (COVID-19) infection in vitro (EC50=1.13 μM)[1][2][3][4].	
<b>IC<sub>50</sub> &amp; Target</b>	Plasmodium	TLRs
<b>In Vitro</b>	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	

### CUSTOMER VALIDATION

- Nucleic Acids Res. 2021 Jan 8;49(D1):D11113-D11121.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

### REFERENCES

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019;53(2):211-216.
- [2]. Said A, et al. Chloroquine promotes IL-17 production by CD4+ T cells via p38-dependent IL-23 release by monocyte-derived Langerhans-like cells. *J Immunol.* 2014 Dec 15;193(12):6135-43.
- [3]. Tuomela J, et al. Chloroquine has tumor-inhibitory and tumor-promoting effects in triple-negative breast cancer. *Oncol Lett.* 2013 Dec;6(6):1665-1672.
- [4]. Mohamed FE, et al. Effect of toll-like receptor 7 and 9 targeted therapy to prevent the development of hepatocellular carcinoma. *Liver Int.* 2014 Jul 2. doi: 10.1111/liv.12626.
- [5]. Wang M, et al. Remdesivir and chloroquine effectively inhibit the recently emerged novel coronavirus (2019-nCoV) in vitro. *Cell Res.* 2020 Mar;30(3):269-271.

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[6]. Colson P, et al. Chloroquine and hydroxychloroquine as available weapons to fight COVID-19. *Int J Antimicrob Agents*. 2020;55(4):105932.

[7]. Savarino A, et al. The anti-HIV-1 activity of chloroquine. *J Clin Virol*. 2001;20(3):131-135.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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