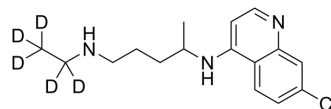


Desethyl chloroquine-d₅

Cat. No.:	HY-135811S1
CAS No.:	1261392-69-1
Molecular Formula:	C ₁₆ H ₁₇ D ₅ ClN ₃
Molecular Weight:	296.85
Target:	Autophagy; Toll-like Receptor (TLR); Parasite; Isotope-Labeled Compounds
Pathway:	Autophagy; Immunology/Inflammation; Anti-infection; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Desethyl chloroquine-d ₅ is deuterium labeled Desethyl chloroquine. Desethyl chloroquine is a major desethyl metabolite of Chloroquine. Chloroquine diphosphate is an inhibitor of autophagy and toll-like receptors (TLRs). Desethyl chloroquine possesses antiplasmodic activity[1][2].
IC₅₀ & Target	Plasmodium
In Vitro	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 ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019;53(2):211-216.
- [2]. Ajayi FO, et al. Comparison of the partitioning in vitro of chloroquine and its desethyl metabolites between the erythrocytes and plasma of healthy subjects and those with falciparum malaria. *Afr J Med Med Sci.* 1989 Jun;18(2):95-100.
- [3]. 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.
- [4]. Vodicka P, et al. Assessment of chloroquine treatment for modulating autophagy flux in brain of WT and HD mice. *J Huntingtons Dis.* 2014;3(2):159-74.

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

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