Desethyl chloroquine

Cat. No.: HY-135811

CAS No.: 1476-52-4

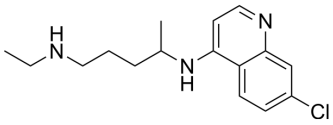
Molecular Formula: $C_{16}H_{22}ClN_3$

Molecular Weight: 291.82

Target: Parasite; Toll-like Receptor (TLR); Autophagy

Pathway: Anti-infection; Immunology/Inflammation; Autophagy

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	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].	
IC_{50} & Target	Plasmodium	TLRs
In Vitro	P. falciparum[1] MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
In Vivo	Intraperitoneal injections of Chloroquine are administered to wild-type and Huntington's disease (Q175/Q175) mice. LC-MS/MS is used to compare the levels Chloroquine and its metabolites in blood, brain and muscle tissue. Concentrations of Chloroquine are lower (5-15M), but more stable in brain tissue compared to blood or muscle between 4 and 24 hours after the last dose. Levels of the active Chloroquine metabolite Desethyl chloroquine decreased in muscle and blood over the 24 hour post-injection period, while brain Desethyl chloroquine levels are lower and rose slightly over the same time frame[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.	

CUSTOMER VALIDATION

- Cell Death Dis. 2021 Jan 7;12(1):42.

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REFERENCES

[1]. 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.

[2]. 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.

[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.

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

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