

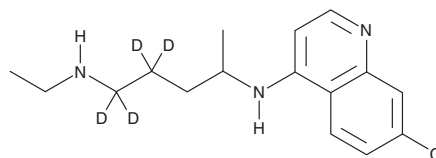
PRODUCT INFORMATION



Desethylchloroquine-d₄

Item No. 30907

CAS Registry No.: 1189971-72-9
Formal Name: N⁴-(7-chloro-4-quinolinyl)-N¹-ethyl-1,4-pentane-1,1,2,2-d₄-diamine
Synonym: N-Desethylchloroquine-d₄
MF: C₁₆H₁₈ClD₄N₃
FW: 295.8
Chemical Purity: ≥95% (Desethylchloroquine)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₄); ≤1% d₀
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Desethylchloroquine-d₄ is intended for use as an internal standard for the quantification of desethylchloroquine (Item No. 30113) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Desethylchloroquine-d₄ is supplied as a solid. A stock solution may be made by dissolving the desethylchloroquine-d₄ in the solvent of choice, which should be purged with an inert gas. Desethylchloroquine-d₄ is slightly soluble in methanol and DMSO.

Description

Desethylchloroquine is a major active metabolite of chloroquine (Item No. 14194).¹ Desethylchloroquine is formed when chloroquine undergoes dealkylation, primarily by the cytochrome P450 (CYP) isoforms CYP2C8 and CYP3A4 and to a lesser extent by CYP2D6. It inhibits the growth of the *P. falciparum* strain LA136 *in vitro* (IC₅₀ = 9.9 ng/ml).²

References

1. Projean, D., Baune, B., Farinotti, R., *et al.* In vitro metabolism of chloroquine: Identification of CYP2C8, CYP3A4, and CYP2D6 as the main isoforms catalyzing N-desethylchloroquine formation. *Drug Metab. Dispos.* **31(6)**, 748-754 (2003).
2. Aderounmu, F.A. In vitro assessment of the antimalarial activity of chloroquine and its major metabolites. *Ann. Trop. Med. Parasitol.* **78(6)**, 581-585 (1984).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

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