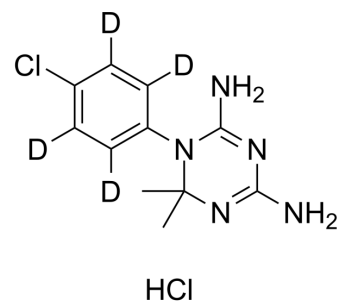


Cycloguanil-d4 hydrochloride

Cat. No.:	HY-12784AS
CAS No.:	1189427-23-3
Molecular Formula:	C ₁₁ H ₁₁ D ₄ Cl ₂ N ₅
Molecular Weight:	292.2
Target:	Parasite; Drug Metabolite
Pathway:	Anti-infection; Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Cycloguanil-d4 hydrochloride is the deuterium labeled Cycloguanil hydrochloride. Cycloguanil hydrochloride, the active metabolite of Proguanil, acts on malaria schizonts in erythrocytes and hepatocytes ^[1] .
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]. Matthaei J, et al. OCT1 Deficiency Affects Hepatocellular Concentrations and Pharmacokinetics of Cycloguanil, the Active Metabolite of the Antimalarial Drug Proguanil. *Clin Pharmacol Ther.* 2019 Jan;105(1):190-200.

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

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