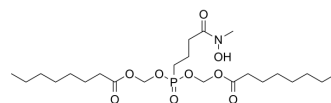


Antimalarial agent 18

Cat. No.:	HY-151965
Molecular Formula:	C ₂₃ H ₄₄ NO ₉ P
Molecular Weight:	509.57
Target:	Parasite
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Antimalarial agent 18 is a potent antimalarial agent, based on electronic, highly lipophilic and siderophoric properties. Antimalarial agent 18 belongs to the acyloxymethyl series, as a fosmidomycin surrogate, which is a potent IspC inhibitor against the non-mevalonate isoprenoid biosynthesis pathway. Antimalarial agent 18 inhibits <i>P. falciparum</i> (IC ₅₀ =50 nM) and <i>A. baumannii</i> (IC ₅₀ =390 nM) ^[1] .
IC₅₀ & Target	Plasmodium
In Vitro	Antimalarial agent 18 (compound 13j) is the long chain octanoyl analog, showing cytotoxicity against MRC-5 fibroblasts with an IC ₅₀ value of 40.3 μM ^[1] . Antimalarial agent 18 poorly inhibits avirulent <i>M. tuberculosis</i> strain (H37Ra) with an IC ₅₀ value >64 μM ^[1] . Antimalarial agent 18 may serve as a lead for future analog development of MEP pathway inhibitors against Gram-negative pathogens in general, and <i>A. baumannii</i> in particular ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Courtens C, et al. Acyloxymethyl and alkoxy-carbonyloxymethyl prodrugs of a fosmidomycin surrogate as antimalarial and antibacterial agents. *Eur J Med Chem.* 2023 Jan 5;245(Pt 1):114924.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA