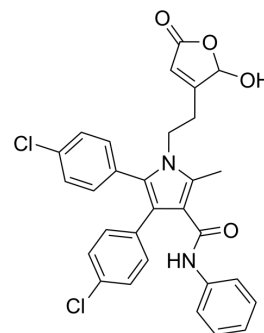


Anti-inflammatory agent 40

Cat. No.:	HY-149961
Molecular Formula:	C ₃₀ H ₂₄ Cl ₂ N ₂ O ₄
Molecular Weight:	547.43
Target:	Parasite
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Anti-inflammatory agent 40 is a potential and orally active anti-malarial and anti-inflammatory agent. Anti-inflammatory agent 40 inhibits carrageenan induced paw swelling in vivo.
In Vitro	Anti-inflammatory agent 40 (compound 5p) is against both CQ-sensitive and resistant strains of <i>P. falciparum</i> , Anti-inflammatory agent 40 exhibits IC ₅₀ value 1.47 μM against chloroquine sensitive strain of <i>P. falciparum</i> (Pf3D7) ^[1] . Anti-inflammatory agent 40 inhibits LPS induced MAP kinase activation and decreases pERK1/2 (Thr202/Tyr204) and pJNK1/2 expression in THP-1 monocytes ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Anti-inflammatory agent 40 (compound 5p) (p.o, 1 h prior to carrageenan injection) 25, 50 and 100 mg/kg Paw swelling was subsequently monitored after 4 and 6 h shows inhibition in swiss mice, the Carrageenan inhibition percent are 61%, 56% at 25mg/kg after 4h or 6h, respectively. the Carrageenan inhibition percent are 62%, 56% at 50 mg/kg after 4h or 6h, respectively, and 73%, 65% at 50 mg/kg after 4h or 6h, respectively ^[1] . Anti-inflammatory agent 40 exhibits good PK profile, it is satisfactory and can be attested for the candidates for future drug discovery optimization, the C _{max} , T _{max} , AUC, t _{1/2} are 110.37 ± 11.92 ng/mL, 0.25 ± 0.0 h, 86.91 ± 16.86 h.ng/mL and 0.87 ± 0.15 h, respectively ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Alka Raj Pandey, et al. Design, synthesis and evaluation of novel pyrrole-hydroxybutenolide hybrids as promising antiplasmodial and anti-inflammatory agents. *Eur J Med Chem.* 2023 Jun 5;254:115340

[2]. Alka Raj Pandey, et al. Design, synthesis and evaluation of novel pyrrole-hydroxybutenolide hybrids as promising antiplasmodial and anti-inflammatory agents. *Eur J Med Chem.* 2023 Jun 5;254:115340

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

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