

Anti-inflammatory agent 40

Chemical Properties

CAS No. :

Formula: C₃₀H₂₄Cl₂N₂O₄

Molecular Weight: 547.43

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.

Biological Description

Description	Anti-inflammatory agent 40 is a promising, orally-active compound with anti-malarial and anti-inflammatory properties that effectively inhibits carrageenan-induced paw swelling in vivo.
Targets(IC50)	Parasite
In vitro	Anti-inflammatory agent 40 (compound 5p) exhibits inhibitory effects on chloroquine-sensitive and resistant strains of Plasmodium falciparum, with an IC ₅₀ of 1.47 μM against the chloroquine-sensitive strain (Pf 3D7). It also suppresses lipopolysaccharide-induced activation of MAP kinases and reduces the expression of phosphorylated ERK1/2 (Thr202/Tyr204) and JNK1/2 in THP-1 monocytes [1].
In vivo	Anti-inflammatory agent 40 (compound 5p) showed inhibition of carrageenan-induced paw swelling in Swiss mice when administered 1 hour before carrageenan injection at 25, 50, and 100 mg/kg, with swelling reductions observed at 4 and 6 hours post-injection. At 25 mg/kg, inhibition rates were 61% and 56% at 4 and 6 hours, respectively; at 50 mg/kg, rates were 73% and 65%. Agent 40 also had favorable pharmacokinetics, with a C _{max} of 110.37±11.92 ng/mL, T _{max} of 0.25±0.0 h, AUC of 86.91±16.86 h.ng/mL, and T _{1/2} of 0.87±0.15 h, making it a promising candidate for future drug discovery optimization [1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.8267 mL	9.1336 mL	18.2672 mL
5 mM	0.3653 mL	1.8267 mL	3.6534 mL
10 mM	0.1827 mL	0.9134 mL	1.8267 mL
50 mM	0.0365 mL	0.1827 mL	0.3653 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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