Helioxanthin 8-1

Cat. No.: HY-16680

CAS No.: 840529-13-7

Molecular Formula: $C_{20}H_{12}N_2O_6$

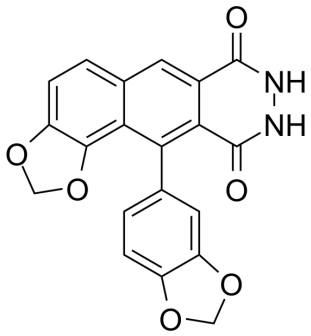
Molecular Weight: 376.32

Target: HBV

Pathway: Anti-infection

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 10 mg/mL (26.57 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.6573 mL	13.2866 mL	26.5731 mL
	5 mM	0.5315 mL	2.6573 mL	5.3146 mL
	10 mM	0.2657 mL	1.3287 mL	2.6573 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 1 mg/mL (2.66 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 1 mg/mL (2.66 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Helioxanthin 8-1 is an analogue of helioxanthin, exhibites significant in vitro anti-HBV/HCV/HSV-1/HIV activity with EC50 of >5/10/1.4/15 uM.IC50 value: >5/10/1.4/15 uM(HBV/HCV/HSV-1/HIV) [1]Target: Antiviral agentThe cyclic hydrazide 28(Helioxanthin 8-1) showed the most potent antiHBV activity among those helioxanthin analogues tested. In addition, compound 28 exhibited moderately potent activity against HIV. It would therefore be promising to study helioxanthin analogues that contain a six-membered ring instead of the five-membered ring found in the lactam [1]. 8-1 exhibited effective inhibition on DHBV replication. The combination of 8-1 with 3TC resulted in additional anti-DHBV activity. Viral induced cells displayed higher susceptibility to 8-1 treatment than non-induced cells. HBV X protein might not be an essential factor in the initiation of the biological activity of 8-1, as demonstrated by its absence in DHBV [2].

CUSTOMER VALIDATION

- ACS Infect Dis. 2019 May 10;5(5):778-787.
- Microorganisms. 2021, 9(3), 471.

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REFERENCES

[1]. Yeo H, et al. Synthesis and antiviral activity of helioxanthin analogues. J Med Chem. 2005 Jan 27;48(2):534-46.

[2]. Ying C, et al. Helioxanthin analogue 8-1 inhibits duck hepatitis B virus replication in cell culture. Antivir Chem Chemother. 2010;21(2):97-103.

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