HBV-IN-25

Cat. No.: HY-151134

CAS No.: 2161364-69-6

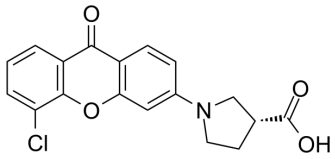
Molecular Formula: $C_{18}H_{14}ClNO_4$

Molecular Weight: 343.76

Target: HBV

Pathway: Anti-infection

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

HBV-IN-25 is a good potency, orally active novel HBV cccDNA reducer. HBV-IN-25 has anti-HBeAg potency and anti-HBV activity with IC_{50} values of 0.58 μM and 1.15 μM, respectively. HBV-IN-25 has good aqueous solubility (LYSA 452 μg/mL) and good PK property with no cellular toxicity[1].

IC_{50} & Target

IC50: 0.58 μM (anti-HBeAg); 1.15 μM (anti-HBV)[1].

In Vitro

HBV-IN-25 (8-50 μM, 5 days) has anti-HBeAg potency with an IC_{50} value of 0.58 μM.
HBV-IN-25 (8-50 μM, 5 days) has the anti-HBV activity in PHH is maintained or slightly decreased with IC_{50} value of 1.15 μM[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

HBV-IN-25 (oral, 5, 20, 100, 300 mg/kg, single) has good PK property, and also shows excellent efficacy in significantly reducing HBV antigens, DNA, and intrahepatic cccDNA levels[1].
Pharmacokinetic Parameters of HBV-IN-25 inHBVcircle mouse model (oral, 5, 20, 100, 300 mg/kg, single)[1].

Dose	Terminal body weight % versus day 1	Spinal cord inflammation Foci per 20 cells	Spinal cord demyelination Score 0–5	Spinal cord apoptotic cells Count per section
PK parameter	5 mg/kg PO	20 mg/kg PO	100 mg/kg PO	300 mg/kg PO
C_{max}(ng/kg)	828	8157	32200	59900
T_{max}(ng/kg)	0.25	0.5	0.5	2.67
$AUC_{0-\infty}$(ng h/mL)	857	11,818	119,960	453,367
$t_{1/2}$(h)	3.46	3.45	1.82	
dose-normalized C_{max} [(ng/mL)/(mg/kg)]	166	408	322	200

Dose-normalized AUC $_{0-24h}$ [(ng h/mL)/(mg/kg)]	171	591	1200	1511

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	HBVcircle mouse model[1]
Dosage:	5, 20, 100, 300 mg/kg
Administration:	oral, 5, 20, 100, 300 mg/kg, single
Result:	

REFERENCES

[1]. Dongdong Chen, et al. Discovery of Novel cccDNA Reducers toward the Cure of Hepatitis B Virus Infection. J Med Chem. 2022 Aug 16.

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