GSK3739936

Cat. No.: HY-150080

CAS No.: 1803444-21-4

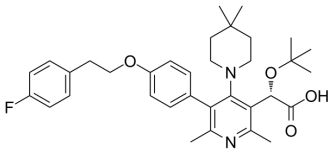
Molecular Formula: $C_{34}H_{43}FN_2O_4$

Molecular Weight: 562.71

Target: HIV; HIV Integrase

Pathway: Anti-infection; Metabolic Enzyme/Protease

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



BIOLOGICAL ACTIVITY

Description

GSK3739936 (BMS-986180) is a potent HIV-1 allosteric integrase inhibitor with an IC_{50} value of 11.1 nM and an EC_{50} value of 1.7 nM. GSK3739936 is also a weak CYP inhibitor (IC_{50}>24.3 μM). GSK3739936 shows favorable pharmacokinetic property in preclinical species with rapid absorption, low to moderate clearance and excellent oral bioavailability[1].

IC_{50} & Target

IC_{50}: 11.1 nM (HIV-1 integrase)[1]
EC_{50}: 1.7 nM (HIV-1 integrase)[1]
IC_{50}: >24.3 μM (CYP)[1]

In Vitro

GSK3739936 is not cytotoxic to MT-2 cells, exhibiting CC_{50} values of >20 μM[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

GSK3739936 exhibits favorable pharmacokinetic property with rapid absorption, low to moderate clearance and excellent oral bioavailability[1].
Pharmacokinetic Parameters of GSK3739936 in Preclinical Species[1].

	Male CD-1 mice	Male Sprague-Dawley rats	Cynomolgus monkey	Male beagle dogs
IV dose (mg/kg)	1	1	1	1
CL (mL/min/kg)	5.4	5.5	14.5	2.9
$t_{1/2}$ (h)	6.3	4.3	2.4	5.1
V_{ss} (L/kg)	2.4	1.8	1.5	0.7
PO dose (mg/kg)	5	5	2	2
C_{max} (nM)	2361	2762	525	2963

t_{max} (h)	5	2.7	2	2
AUC (nM·h)	24516	14022	2231	18471
F (%)	89	52	54	75

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

Animal Model:	Male CD-1 mice, male Sprague-Dawley rats, cynomolgus monkey and male beagle dogs[1]
Dosage:	1 mg/kg for IV; 5 or 2 mg/kg for PO
Administration:	PO or IV; single dosage
Result:	Exhibited a low clearance in the mouse, rat, and dog with moderate to long elimination half-lives, while displays moderate clearance and a short elimination half-life in the cynomolgus monkey. The absolute oral bioavailability ranged between 52 and 89%. The t_{max} value of 2-5 h suggesting rapid absorption in all four species.

REFERENCES

[1]. Naidu BN, et al. Design, Synthesis, and Preclinical Profiling of GSK3739936 (BMS-986180), an Allosteric Inhibitor of HIV-1 Integrase with Broad-Spectrum Activity toward 124/125 Polymorphs. J Med Chem. 2022 Mar 24;65(6):4949-4971.

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