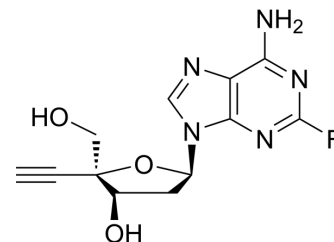


Islatravir

Cat. No.:	HY-104012		
CAS No.:	865363-93-5		
Molecular Formula:	C ₁₂ H ₁₂ FN ₃ O ₃		
Molecular Weight:	293.25		
Target:	HIV; Reverse Transcriptase		
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 : 100 mg/mL (341.01 mM; Need ultrasonic)
 H₂O : 3.57 mg/mL (12.17 mM; ultrasonic and warming and heat to 60°C)

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	3.4101 mL	17.0503 mL	34.1006 mL
	5 mM	0.6820 mL	3.4101 mL	6.8201 mL
	10 mM	0.3410 mL	1.7050 mL	3.4101 mL

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.08 mg/mL (7.09 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.08 mg/mL (7.09 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.08 mg/mL (7.09 mM); Clear solution
- Add each solvent one by one: PBS
Solubility: 1.35 mg/mL (4.60 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 5% DMSO >> 40% PEG300 >> 5% Tween-80 >> 50% saline
Solubility: ≥ 1.1 mg/mL (3.75 mM); Clear solution
- Add each solvent one by one: 5% DMSO >> 95% (20% SBE-β-CD in saline)
Solubility: ≥ 1.1 mg/mL (3.75 mM); Clear solution

BIOLOGICAL ACTIVITY

Description	Islatravir (MK-8591) is a potent anti-HIV-1 agent, acting as a nucleoside reverse transcriptase inhibitor, with EC ₅₀ s of 0.068 nM, 3.1 nM and 0.15 nM for HIV-1 (WT), HIV-1 (M184V), HIV-1 (MDR), respectively. Islatravir is a click chemistry reagent, it contains an Alkyne group and can undergo copper-catalyzed azide-alkyne cycloaddition (CuAAC) with molecules containing Azide groups.		
IC₅₀ & Target	HIV-1 (WT) 0.068 nM (EC50)	HIV-1 (MDR) 0.15 nM (EC50)	HIV-1 (M184V) 3.1 nM (EC50)
In Vitro	Islatravir (MK-8591) (4'Ed2FA) is a potent anti-HIV-1 agent, acting as a nucleoside reverse transcriptase inhibitor, with EC ₅₀ s of 0.068 nM, 3.1 nM and 0.15 nM for HIV-1 (WT), HIV-1 (M184V), HIV-1 (MDR), respectively ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.		

REFERENCES

[1]. Ohrui H, et al. 2'-deoxy-4'-C-ethynyl-2-fluoroadenosine, a nucleoside reverse transcriptase inhibitor, is highly potent against all human immunodeficiency viruses type 1 and has low toxicity. Chem Rec. 2006;6(3):133-43.

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

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