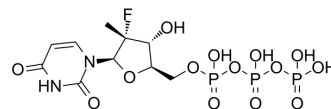


PSI-7409

Cat. No.:	HY-15745	
CAS No.:	1015073-42-3	
Molecular Formula:	C ₁₀ H ₁₆ FN ₂ O ₁₄ P ₃	
Molecular Weight:	500.16	
Target:	HCV	
Pathway:	Anti-infection	
Storage:	Powder	-20°C 3 years
	In solvent	-80°C 6 months
		-20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

H₂O : 50 mg/mL (99.97 mM; Need ultrasonic)
 DMF : < 1 mg/mL (insoluble)
 DMSO : < 1 mg/mL (insoluble or slightly soluble)

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	1.9994 mL	9.9968 mL	19.9936 mL
	5 mM	0.3999 mL	1.9994 mL	3.9987 mL
	10 mM	0.1999 mL	0.9997 mL	1.9994 mL

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

BIOLOGICAL ACTIVITY

Description

PSI-7409 is the active 5'-triphosphate metabolite of Sofosbuvir (PSI-7977). Sofosbuvir (PSI-7977) is a selective and highly active nucleotide analog inhibitor of HCV.

In Vitro

PSI-7409 inhibits the enzymatic activities of these NS5BΔ21 polymerases in a dose-dependent manner. The IC₅₀s for PSI-7409 against GT 1b, 2a, 3a, and 4a NS5B polymerases are 1.6 μM, 2.8 μM, 0.7 μM, and 2.6 μM, respectively. PSI-7409 is a weak inhibitor of DNA Pol α (IC₅₀=550 μM). DNA Pol β and γ are not inhibited by 1 mM PSI-7409. A significant amount of RNA product is made in the presence of 500 μM PSI-7409, about 85%^[1]. In clone A cells, the levels of PSI-7409 gradually increases to a maximum concentration of about 25 μM over a period of 48 h. PSI-7409 forms at a much faster rate in primary human hepatocytes, achieving a maximum intracellular concentration of ~100 μM at 4 h and remains at that concentration for 48 h [2].

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

CUSTOMER VALIDATION

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- Asian J Pharm Sci. 21 October 2021.
 - Antiviral Res. 2020 Mar;175:104708.
 - J Virol Methods. 2021 Sep 14;298:114283.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Lam AM, et al. PSI-7851, a pronucleotide of beta-D-2'-deoxy-2'-fluoro-2'-C-methyluridine monophosphate, is a potent and pan-genotype inhibitor of hepatitis C virus replication. Antimicrob Agents Chemother. 2010 Aug;54(8):3187-96.

[2]. Murakami E, et al. Mechanism of activation of PSI-7851 and its diastereoisomer PSI-7977.

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

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