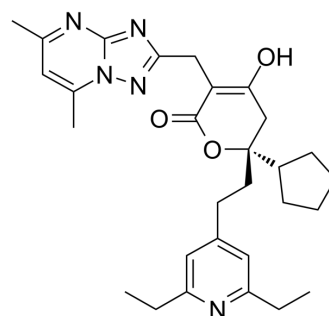


Filibuvir

Cat. No.:	HY-10118		
CAS No.:	877130-28-4		
Molecular Formula:	C ₂₉ H ₃₇ N ₅ O ₃		
Molecular Weight:	503.64		
Target:	HCV; DNA/RNA Synthesis		
Pathway:	Anti-infection; Cell Cycle/DNA Damage		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



BIOLOGICAL ACTIVITY

Description	Filibuvir is an orally active, selective non-nucleoside inhibitor of the HCV nonstructural 5B protein (NS5B) RNA-dependent RNA polymerase (RdRp). Filibuvir binds noncovalently in the thumb II allosteric pocket of NS5B. Filibuvir inhibits genotype 1a and 1b replicons with EC ₅₀ s of 59 nM for both isoforms, respectively ^[1] . Filibuvir preferentially inhibits elongative RNA synthesis and potently decreases viral RNA accumulation ^[2] .
In Vitro	Filibuvir (0.01-10000 nM; 48 h) inhibits the WT 1b replicon in a dose-dependent manner, with an EC ₅₀ of ~70 nM in Huh7.5 cells harboring the HCV replicon. Filibuvir binds to the HCV polymerase with a dissociation constant of 29 nM ^[2] . Filibuvir preferentially inhibits elongative RNA synthesis rather than de novo-initiated RNA synthesis. Filibuvir has no obvious effect on de novo-initiated RNA synthesis (IC ₅₀ =~5 μM) but decreases primer extension from PE46, with an IC ₅₀ of 73 nM ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Viruses. 2020 Jun 10;12(6):628.
- Microorganisms. 2023 Jun 18, 11(6), 1608.

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REFERENCES

- [1]. Wagner F, et al. Antiviral activity of the hepatitis C virus polymerase inhibitor filibuvir in genotype 1-infected patients. *Hepatology*. 2011 Jul;54(1):50-9.
- [2]. Guanghui Yi, et al. Biochemical study of the comparative inhibition of hepatitis C virus RNA polymerase by VX-222 and filibuvir. *Antimicrob Agents Chemother*. 2012 Feb;56(2):830-7.

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

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