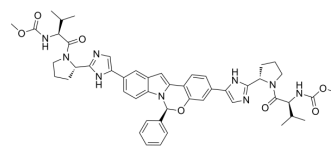


## Elbasvir

Cat. No.:	HY-15789		
CAS No.:	1370468-36-2		
Molecular Formula:	C <sub>49</sub> H <sub>55</sub> N <sub>9</sub> O <sub>7</sub>		
Molecular Weight:	882.02		
Target:	HCV		
Pathway:	Anti-infection		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : ≥ 50 mg/mL (56.69 mM)  
 \* "≥" means soluble, but saturation unknown.

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	1.1338 mL	5.6688 mL	11.3376 mL
	5 mM	0.2268 mL	1.1338 mL	2.2675 mL
	10 mM	0.1134 mL	0.5669 mL	1.1338 mL

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

#### In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
 Solubility: ≥ 2.5 mg/mL (2.83 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Elbasvir (MK-8742) is a hepatitis C virus nonstructural protein 5A (HCV NS5A) inhibitor with EC<sub>50</sub>s of 4, 3 and 3 nM against genotype 1a, 1b, and 2a, respectively.

#### IC<sub>50</sub> & Target

EC<sub>50</sub>: 4 nM (HCV 1a), 3 nM (HCV 1b), 3 nM (HCV 2a)<sup>[1]</sup>

#### In Vitro

Elbasvir shows potent activity against genotype 1a and 1b replicons, with EC<sub>90</sub> of 0.006 nM for both the wild-type 1a\_H77 and 1b\_con1 replicons. Elbasvir inhibits genotype 3 replicons with EC<sub>90</sub> of 0.12 nM. Elbasvir (0.06 nM, 0.6 nM, and 6 nM) demonstrates dose-dependent suppression of resistant genotype 1a replicons, illustrated by the reductions in colony counts at higher doses<sup>[1]</sup>. Elbasvir is highly potent against HCV replicons bearing NS5A sequences from GT1a, -1b, -2a(31L), -3a, -4a, -5a, and -6, with EC<sub>50</sub>s in the low-picomolar range<sup>[2]</sup>.

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

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## CUSTOMER VALIDATION

- Adv Sci (Weinh). 2022 Oct 18;e2203088.
- Hepatology. 2019 May;69(5):1861-1872.
- J Gastroenterol. 2019 May;54(5):449-458.
- Viruses. 2018 Aug 28;10(9). pii: E462.
- Pharmaceuticals. 2022 Feb 18;15(2):242.

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## REFERENCES

- [1]. Liu R, et al. Susceptibilities of genotype 1a, 1b, and 3 hepatitis C virus variants to the NS5A inhibitor Elbasvir. Antimicrob Agents Chemother. 2015 Nov;59(11):6922-6929.
- [2]. Lahser FC, et al. The Combination of Grazoprevir, a Hepatitis C Virus (HCV) NS3/4A Protease Inhibitor, and Elbasvir, an HCV NS5A Inhibitor, Demonstrates a High Genetic Barrier to Resistance in HCV Genotype 1a Replicons. Antimicrob Agents Chemother. 2016 A
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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