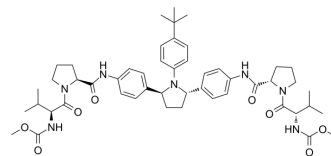


Ombitasvir

Cat. No.:	HY-13997		
CAS No.:	1258226-87-7		
Molecular Formula:	C ₅₀ H ₆₇ N ₇ O ₈		
Molecular Weight:	894.11		
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 : ≥ 33 mg/mL (36.91 mM)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	1.1184 mL	5.5922 mL	11.1843 mL
	5 mM	0.2237 mL	1.1184 mL	2.2369 mL
	10 mM	0.1118 mL	0.5592 mL	1.1184 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: ≥ 2.5 mg/mL (2.80 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: ≥ 2.5 mg/mL (2.80 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Ombitasvir is a potent inhibitor of the hepatitis C virus protein NS5A, with EC₅₀s of 0.82 to 19.3 pM against HCV genotypes 1 to 5, and 366 pM against genotype 6a.

IC₅₀ & Target

EC₅₀: 0.82 to 19.3 pM (HCV genotypes 1 to 5), 366 pM (HCV genotype 6a)^[1]

In Vitro

Ombitasvir is active against the genotype 2a JFH-1 replicon, with an EC₅₀ of 0.82 pM, and the EC₅₀s of ombitasvir are 42 pM and 68 pM against the L28 and F28 variants of this genotype 6a replicon, respectively^[1]. In GT1a, variants M28V, L31V, and H58D confers 58- to 243-fold resistance to Ombitasvir. Single variants M28T, Q30R, and Y93C/S confers 800- to 8965-fold resistance, while Y93H/N confers >40000-fold resistance to Ombitasvir^[2].

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

CUSTOMER VALIDATION

- Antiviral Res. 2017 Mar;139:18-24.
- J Virol. 2018 Jan 2;92(2). pii: e01582-17.
- Xenobiotica. 2019 Aug;49(8):935-944.
- J Liq ChromaTogr R T. 2019: 1-9.
- Chemrxiv. 2021, Jun 10.

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REFERENCES

[1]. Krishnan P, et al. In vitro and in vivo antiviral activity and resistance profile of ombitasvir, an inhibitor of hepatitis C virus NS5A. Antimicrob Agents Chemother. 2015 Feb;59(2):979-87

[2]. DeGoey DA, et al. Discovery of ABT-267, a pan-genotypic inhibitor of HCV NS5A. J Med Chem. 2014 Mar 13;57(5):2047-57

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

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