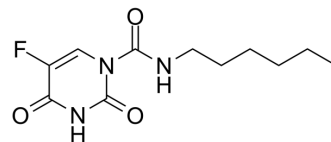


Carmofur

Cat. No.:	HY-B0182		
CAS No.:	61422-45-5		
Molecular Formula:	C ₁₁ H ₁₆ FN ₃ O ₃		
Molecular Weight:	257.26		
Target:	Nucleoside Antimetabolite/Analog; SARS-CoV; Virus Protease		
Pathway:	Cell Cycle/DNA Damage; 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 (388.71 mM)
 H₂O : 0.67 mg/mL (2.60 mM; Need ultrasonic)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	3.8871 mL	19.4356 mL	38.8712 mL
	5 mM	0.7774 mL	3.8871 mL	7.7742 mL
	10 mM	0.3887 mL	1.9436 mL	3.8871 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 (8.09 mM); Suspended solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.08 mg/mL (8.09 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.08 mg/mL (8.09 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Carmofur (HCFU), a derivative of 5-Fluorouracil, is an antineoplastic agent. Carmofur is an inhibitor of acid ceramidase with an IC₅₀ of 79 nM for the rat enzyme. Carmofur inhibits the SARS-CoV-2 main protease (Mpro). Carmofur Inhibits SARS-CoV-2 in Vero E6 cell with an EC₅₀ of 24.3 μM^{[1][2]}.

CUSTOMER VALIDATION

- Nucleic Acids Res. 2021 Jan 8;49(D1):D1113-D1121.
- J Mol Med (Berl). 2019 Aug;97(8):1183-1193.

See more customer validations on www.MedChemExpress.com

REFERENCES

- [1]. Realini N, et al. Discovery of highly potent acid ceramidase inhibitors with in vitro tumor chemosensitizing activity. Sci Rep. 2013;3:1035.
- [2]. Jin Z, et al. Structural basis for the inhibition of SARS-CoV-2 main protease by antineoplastic drug carmofur. Nat Struct Mol Biol. 2020;27(6):529-532.
-

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