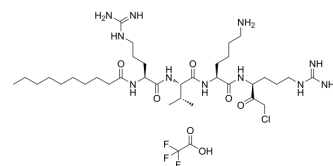


Decanoyl-RVKR-CMK TFA

Cat. No.: HY-107760A
CAS No.: 2098497-25-5
Molecular Formula: C₃₆H₆₇ClF₃N₁₁O₇
Molecular Weight: 858.43
Target: HIV
Pathway: Anti-infection
Storage: Sealed storage, away from moisture

Powder -80°C 2 years
 -20°C 1 year

* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (58.25 mM; Need ultrasonic)
 H₂O : 4 mg/mL (4.66 mM; Need ultrasonic)

	Solvent Concentration	Mass	1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM		1.1649 mL	5.8246 mL	11.6492 mL
	5 mM		0.2330 mL	1.1649 mL	2.3298 mL
	10 mM		0.1165 mL	0.5825 mL	1.1649 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 (2.91 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
 Solubility: 2.5 mg/mL (2.91 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: 2.5 mg/mL (2.91 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

Decanoyl-RVKR-CMK (DecRVKRCmk) TFA inhibits over-expressed gp160 processing and HIV-1 replication^[1].

IC₅₀ & Target

HIV-1

HIV-2

In Vitro

Decanoyl-RVKR-CMK (DecRVKRCmk) TFA inhibits HIV-2_{ROD} replication by blocking envelope glycoprotein precursor processing in the Jurkat lymphocyte cell^[1].

?Decanoyl-RVKR-CMK (DecRVKRcmk) TFA blocks regulated secretion of VGF^[2].

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

Cell Viability Assay^[1]

Cell Line:	HeLaCD4 cells infected with recombinant vaccinia viruses at a multiplicity of infection (MOI) of 5 PFU/mL
Concentration:	35 and 70 μ M
Incubation Time:	7 days
Result:	Peptide at 35 μ M significantly inhibited ex vivo HIV-1 and HIV-2 replications (70-80% inhibition).

REFERENCES

[1]. B Bahbouhi, et al. Inhibition of HIV-2(ROD) replication in a lymphoblastoid cell line by the alpha1-antitrypsin Portland variant (alpha1-PDX) and the decRVKRcmk peptide: comparison with HIV-1(LAI). Microbes Infect. 2001 Nov;3(13):1073-84.

[2]. Angelo L Garcia, et al. A prohormone convertase cleavage site within a predicted alpha-helix mediates sorting of the neuronal and endocrine polypeptide VGF into the regulated secretory pathway. J Biol Chem. 2005 Dec 16;280(50):41595-608.

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

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