Enfuvirtide acetate

Cat. No.:	HY-P0052A			
CAS No.:	914454-00-5			
Molecular Formula:	C ₂₀₆ H ₃₀₅ N ₅₁ O ₆₆			
Molecular Weight:	4551.93			
Sequence:	Ac-Tyr-Thr-Ser-Leu-Ile-His-Ser-Leu-Ile-Glu-Glu-Ser-Gln-Asn-Gln-Gln-Glu-Lys-Asn-Glu-			
Sequence Shortening:	Ac-YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF-NH2			
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 : 100 mg/mL (21.97 mM; Need ultrasonic) H ₂ O : 2 mg/mL (0.44 mM; Need ultrasonic)						
	Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg		
		1 mM	0.2197 mL	1.0984 mL	2.1969 mL		
		5 mM	0.0439 mL	0.2197 mL	0.4394 mL		
		10 mM	0.0220 mL	0.1098 mL	0.2197 mL		
	Please refer to the so	ubility information to select the app	propriate solvent.				
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: 2.5 mg/mL (0.55 mM); Suspended solution; Need ultrasonic						
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: 2.5 mg/mL (0.55 mM); Suspended solution; Need ultrasonic						
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (0.55 mM); Clear solution						

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Product Data Sheet

In Vitro	A cell-cell fusion assay reveals that the effective concentration for achieving 50% inhibition (IC ₅₀) of Enfuvirtide is 23 ± 6 nM ^[2] . IFN-λs (1, 2, or 3) or the antiretrovirals (AZT, Efavirenz, Indinavir, and Enfuvirtide) significantly inhibita the expression of HIV p24 antigen and Gag gene in macrophages. IFN-λs (1, 2, or 3) also enhanced the anti-HIV (Bal) effect of AZT, Efavirenz, Indinavir, and Enfuvirtide ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Enfuvirtide has a T _{1/2} of 3.8 h ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Int J Antimicrob Agents. 2019 Dec;54(6):814-819.
- Cell Rep. 2022 Feb 1;38(5):110296.

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REFERENCES

[1]. Figueira TN, et al. Quantitative analysis of molecular partition towards lipid membranes using surface plasmon resonance. Sci Rep. 2017 Mar 30;7:45647.

[2]. Cao P, et al. The improved efficacy of Sifuvirtide compared with Enfuvirtide might be related to its selectivity for the rigid biomembrane, as determined through surface plasmon resonance. PLoS One. 2017 Feb 16;12(2):e0171567.

[3]. Wang X, et al. IFN-λ Inhibits Drug-Resistant HIV Infection of Macrophages. Front Immunol. 2017 Mar 6;8:210.

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