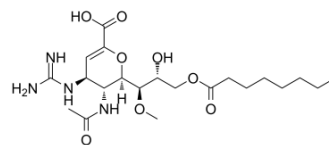


Laninamivir octanoate

Cat. No.:	HY-14818A	
CAS No.:	203120-46-1	
Molecular Formula:	C ₂₁ H ₃₆ N ₄ O ₈	
Molecular Weight:	472.53	
Target:	Influenza Virus	
Pathway:	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 (211.63 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	2.1163 mL	10.5813 mL	21.1627 mL
		5 mM	0.4233 mL	2.1163 mL	4.2325 mL
10 mM		0.2116 mL	1.0581 mL	2.1163 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	1. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (5.29 mM); Clear solution 2. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (5.29 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	Laninamivir octanoate (CS-8958), a prodrug of Laninamivir, is a long-acting neuraminidase (NA) inhibitor with anti-influenza virus activity. Laninamivir octanoate shows anti-influenza activity against Oseltamivir-resistant viruses, and also against the pandemic influenza viruses ^{[1][2]} .
In Vitro	Laninamivir octanoate (CS-8958) shows inhibitory activity with an IC ₅₀ of 631-1170 nM, 39.2-221 nM and 128 nM to the H1N1 viruses strains, H3N2 viruses strains and H2N2 (A/Singapore/1/57) virus, respectively ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Laninamivir octanoate (CS-8958; 95 µg/kg; intranasal administration; three dose; at 4 h before and 4 h and 17 h postinfection) treatment shows significantly life-prolonging effect in infected model ^[1] .

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

Animal Model:	Female BALB/c mice (5-6 weeks old) infected with influenza A virus A/PR/8/34 ^[1]
Dosage:	0.2 μ mol/kg (95 μ g/kg)
Administration:	Intranasal administration; three dose; at 4 h before and 4 h and 17 h postinfection
Result:	Showed life-prolonging effect in infected model.

REFERENCES

[1]. Makoto Yamashita, et al. CS-8958, a prodrug of the new neuraminidase inhibitor R-125489, shows long-acting anti-influenza virus activity. *Antimicrob Agents Chemother.* 2009 Jan;53(1):186-92.

[2]. Hideyuki Ikematsu, et al. Laninamivir octanoate: a new long-acting neuraminidase inhibitor for the treatment of influenza. *Expert Rev Anti Infect Ther.* 2011 Oct;9(10):851-7.

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

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