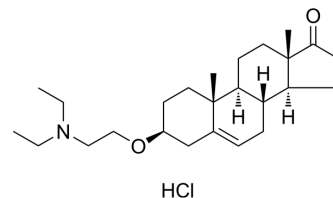


U18666A

Cat. No.:	HY-107433
CAS No.:	3039-71-2
Molecular Formula:	C ₂₅ H ₄₂ ClNO ₂
Molecular Weight:	424.06
Target:	HCV; Flavivirus; Dengue virus
Pathway:	Anti-infection
Storage:	-20°C, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 20.83 mg/mL (49.12 mM; ultrasonic and warming and heat to 60°C)
H₂O : 5.56 mg/mL (13.11 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	2.3582 mL	11.7908 mL	23.5816 mL
	5 mM	0.4716 mL	2.3582 mL	4.7163 mL
	10 mM	0.2358 mL	1.1791 mL	2.3582 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- Add each solvent one by one: PBS
Solubility: 5 mg/mL (11.79 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.08 mg/mL (4.90 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.08 mg/mL (4.90 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.08 mg/mL (4.90 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

U18666A, an intra-cellular cholesterol transport inhibitor, inhibits replication of Ebola virus, dengue virus, and human hepatitis C virus^[1].

IC₅₀ & Target

Cholesterol^{[1][2]}.

In Vitro

U18666A, the antiviral effect is found to result from two events: retarded viral trafficking in the cholesterol-loaded late

endosomes/lysosomes and suppress de novo sterol biosynthesis in treated infected cells. It is also observed an additive antiviral effect of U18666A with C75, a fatty acid synthase inhibitor, suggesting dengue virus relies on both the host cholesterol and fatty acid biosynthesis for successful replication^{[1][2]}.

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

CUSTOMER VALIDATION

- Emerg Microbes Infect. 2023 Sep 19;2261556.
- Antiviral Res. 2022 Dec 15;209:105497.
- Int J Mol Sci. 2022, 23(19), 11660.
- J Virol. 2023 Mar 14;e0004123.
- J Virol. 2020 Nov 23;94(24):e01350-20.

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REFERENCES

[1]. Poh MK, et al. U18666A, an intra-cellular cholesterol transport inhibitor, inhibits dengue virus entry and replication. Antiviral Res. 2012 Jan;93(1):191-8.

[2]. Cenedella RJ, et al. Cholesterol synthesis inhibitor U18666A and the role of sterol metabolism and trafficking in numerous pathophysiological processes. Lipids. 2009 Jun;44(6):477-87.

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

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