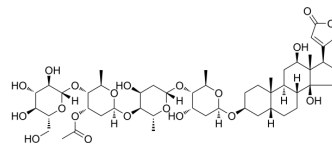


Lanatoside C

Cat. No.:	HY-B1030
CAS No.:	17575-22-3
Molecular Formula:	C ₄₉ H ₇₆ O ₂₀
Molecular Weight:	985.12
Target:	Autophagy; Enterovirus; Flavivirus; Dengue virus
Pathway:	Autophagy; Anti-infection
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 2 years -20°C 1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (50.76 mM; Need ultrasonic)
 Ethanol : 2 mg/mL (2.03 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	1.0151 mL	5.0755 mL	10.1510 mL
	5 mM	0.2030 mL	1.0151 mL	2.0302 mL
	10 mM	0.1015 mL	0.5076 mL	1.0151 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 (2.11 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.08 mg/mL (2.11 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.08 mg/mL (2.11 mM); Clear solution
- Add each solvent one by one: 10% EtOH >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 0.2 mg/mL (0.20 mM); Clear solution
- Add each solvent one by one: 10% EtOH >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 0.2 mg/mL (0.20 mM); Clear solution
- Add each solvent one by one: 10% EtOH >> 90% corn oil
Solubility: ≥ 0.2 mg/mL (0.20 mM); Clear solution

BIOLOGICAL ACTIVITY

Description	Lanatoside C is a cardiac glycoside, can be used in the treatment of congestive heart failure and cardiac arrhythmia. Lanatoside C has an IC50 of 0.19 μ M for dengue virus infection in HuH-7 cells. Lanatoside C can effectively inhibit all four serotypes of dengue virus, flavivirus Kunjin, alphavirus Chikungunya, Sindbis virus and the human enterovirus 71 ^{[1][2]} .
In Vitro	Dose-dependent reduction in dengue viral RNA and viral proteins synthesis were also observed upon treatment with increasing concentrations of Lanatoside C. Time of addition study indicated that Lanatoside C inhibits the early processes of the dengue virus replication cycle. Furthermore, Lanatoside C can effectively inhibit all four serotypes of dengue virus, flavivirus Kunjin, alphavirus Chikungunya and Sindbis virus as well as the human enterovirus 71. Lanatoside C possesses broad spectrum antiviral activity against several groups of positive-sense RNA viruses ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Front Oncol. 2021 Jul.
- Biochem Biophys Res Commun. 2020 Feb 19;522(4):862-868.
- Clin Exp Pharmacol Physiol. 2019 Jun;46(6):575-586.
- University of Saskatchewan. 2020 Jun 22.

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REFERENCES

- [1]. Crommentuijn MH, et al. Intracranial AAV-sTRAIL combined with lanatoside C prolongs survival in an orthotopic xenograft mouse model of invasive glioblastoma. Mol Oncol. 2015 Dec 11. pii: S1574-7891(15)00226-4.
- [2]. Cheung YY, et al. Antiviral activity of lanatoside C against dengue virus infection. Antiviral Res. 2014 Nov;111:93-99.

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

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