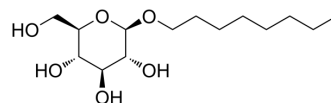


n-Octyl β-D-glucopyranoside

Cat. No.:	HY-116285		
CAS No.:	29836-26-8		
Molecular Formula:	C ₁₄ H ₂₈ O ₆		
Molecular Weight:	292.37		
Target:	Biochemical Assay Reagents		
Pathway:	Others		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

H₂O : 100 mg/mL (342.03 mM; Need ultrasonic)
 DMSO : 100 mg/mL (342.03 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	3.4203 mL	17.1016 mL	34.2032 mL
	5 mM	0.6841 mL	3.4203 mL	6.8406 mL
	10 mM	0.3420 mL	1.7102 mL	3.4203 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 (8.55 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
 Solubility: ≥ 2.5 mg/mL (8.55 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: ≥ 2.5 mg/mL (8.55 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

n-Octyl-β-d-glucopyranoside is a non-ionic detergent, it can be widely used in the research of biotechnical, biochemical applications, solubilization and crystallization of membrane proteins. n-Octyl-β-d-glucopyranoside can completely inhibit cavitation-induced cell lysis in vitro^{[1][2][3]}.

In Vitro

Suspensions of HL-60 cells are exposed to 1.057 MHz unfocused ultrasound for 5-15 s with various additions of alkyl glucopyranosides. 2 mM n-Octyl β-D-glucopyranoside (OGP) added to the medium results in 100% survival of the cells after

5 s exposure under conditions which produces 35%-100% cell lysis without the additive^[3].

Variation of the concentration of n-Octyl β -D-glucopyranoside for 0.5 MPa exposure produced increased cavitation and lysis at 1 mM relative to 0 mM, but decreased cavitation at 5 mM^[3].

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

CUSTOMER VALIDATION

- Acta Pharm Sin B. 2025 Aug;15(8):4078-4095.
- Autophagy. 2024 Nov;20(11):2490-2510.
- Chem Biodivers. 2025 Jun 3:e01481.

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REFERENCES

- [1]. Konidala P, et al. Molecular dynamics characterization of n-octyl-beta-D-glucopyranoside micelle structure in aqueous solution. J Mol Graph Model. 2006 Sep;25(1):77-86.
- [2]. Gould RJ, et al. Effects of octyl beta-glucoside on insulin binding to solubilized membrane receptors. Biochemistry. 1981 Nov 24;20(24):6776-81.
- [3]. Douglas L Miller, et al. The influence of octyl β -D-glucopyranoside on cell lysis induced by ultrasonic cavitation. J Acoust Soc Am. 2011 Nov;130(5):3482-8.

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

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