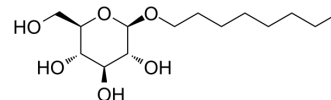


n-Octyl β-D-glucopyranoside

Cat. No.:	HY-116285
CAS No.:	29836-26-8
Molecular Formula:	C ₁₄ H ₂₈ O ₆
Molecular Weight:	292.37
Target:	Others
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	DMSO : 100 mg/mL (342.03 mM; Need ultrasonic)					
	Preparing Stock Solutions	<div><div>Solvent</div><div>Concentration</div></div>	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	1. 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					
	2. 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					
	3. 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.

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

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