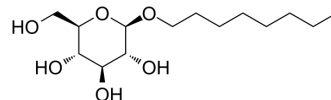


n-Octyl β-D-glucopyranoside

| | | | |
|---------------------------|--|-------|----------|
| 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) | | | | |
| | | Solvent Concentration | Mass 1 mg | 5 mg | 10 mg |
| | Preparing Stock Solutions | 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 | <ol style="list-style-type: none"> 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.

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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