

# PRODUCT INFORMATION



## n-Decyl-β-D-maltoside

Item No. 25704

**CAS Registry No.:** 82494-09-5  
**Formal Name:** decyl 4-O-α-D-glucopyranosyl-β-D-glucopyranoside

**Synonyms:** n-Decyl-β-D-maltopyranoside, Decyl-β-maltopyranoside, Decyl-β-maltoside, Decylmaltoside

**MF:** C<sub>22</sub>H<sub>42</sub>O<sub>11</sub>

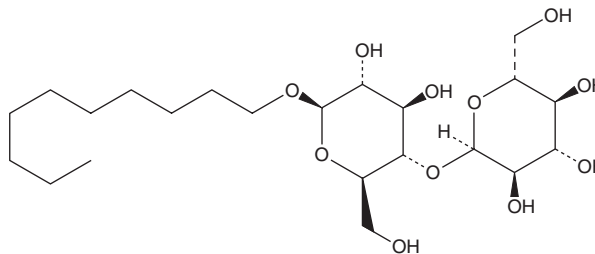
**FW:** 482.6

**Purity:** ≥95%

**Supplied as:** A crystalline solid

**Storage:** -20°C

**Stability:** ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

n-Decyl-β-D-maltoside is supplied as a crystalline solid. A stock solution may be made by dissolving the n-decyl-β-D-maltoside in the solvent of choice. n-Decyl-β-D-maltoside is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of n-decyl-β-D-maltoside in ethanol and DMSO is approximately 10 mg/ml and approximately 20 mg/ml in DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of n-decyl-β-D-maltoside can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of n-decyl-β-D-maltoside in PBS, pH 7.2, is approximately 2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

n-Decyl-β-D-maltoside is a nonionic surfactant that is commonly used to solubilize and stabilize membrane proteins.<sup>1,2</sup> It has a critical micelle concentration (CMC) value of 1.8 mM and has been used in the expression of functional recombinant GPCRs.

### References

1. Maggioni, A., Hadley, B., von Itzstein, M., *et al.* Expression, solubilisation, and purification of a functional CMP-sialic acid transporter in *Pichia pastoris*. *Protein Expr. Purif.* **101**, 165-171 (2014).
2. Schlinkmann, K.M., Hillenbrand, M., Rittner, A., *et al.* Maximizing detergent stability and functional expression of a GPCR by exhaustive recombination and evolution. *J. Mol. Biol.* **422(3)**, 414-428 (2012).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 10/16/2018

#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD

ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897

[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM