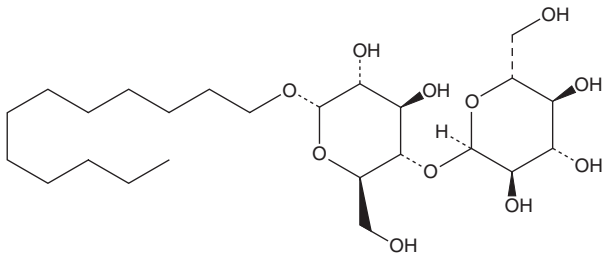
PRODUCT INFORMATION

n-Dodecyl-α-D-maltoside

Item No. 26152

CAS Registry No.:	116183-64-3
Formal Name:	dodecyl 4-O-α-D-glucopyranosyl-α-D-glucopyranoside
Synonyms:	n-Dodecyl-α-D-maltopyranoside, Lauryl α-D-maltopyranoside
MF:	$C_{24}H_{46}O_{11}$
FW:	510.6
Purity:	≥95%
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



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

Laboratory Procedures

n-Dodecyl-α-D-maltoside is supplied as a crystalline solid. A stock solution may be made by dissolving the n-dodecyl-α-D-maltoside in the solvent of choice, which should be purged with an inert gas. n-Dodecyl-α-D-maltoside is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of n-dodecyl-α-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-dodecyl-α-D-maltoside can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of n-dodecyl-α-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-Dodecyl-α-D-maltoside is a nonionic detergent commonly used to solubilize integral membrane proteins and protein complexes.[1,2] It has a critical micelle concentration (CMC) of 0.15 mM.[1] n-Dodecyl-α-D-maltoside has been used to solubilize photosystem I (PSI) and PSII complexes from plant thylakoid membranes, as well as intact grana.

References

1. Pagliano, C., Barera, S., Chimirri, F., *et al.* Comparison of the α and β isomeric forms of the detergent n-dodecyl-D-maltoside for solubilizing photosynthetic complexes from pea thylakoid membranes. *Biochim. Biophys. Acta.* **1817(8)**, 1506-1515 (2012).
2. Horst, R., Stanczak, P., Stevens, R.C., *et al.* β_2-Adrenergic receptor solutions for structural biology analyzed with microscale NMR diffusion measurements. *Angew. Chem. Int. Ed. Engl.* **52(1)**, 331-335 (2013).

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.

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