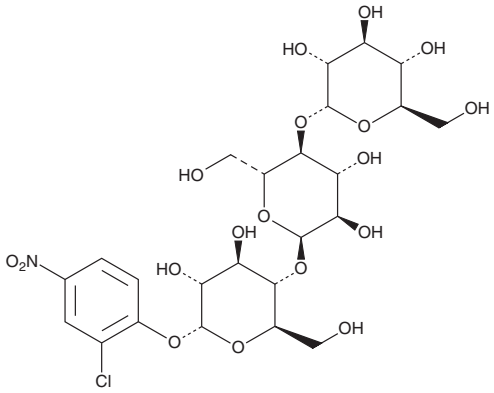
PRODUCT INFORMATION

2-Chloro-4-nitrophenyl α-D-maltotrioside

Item No. 34459

CAS Registry No.:	118291-90-0
Formal Name:	2-chloro-4-nitrophenyl O-α-D-glucopyranosyl-(1→4)-O-α-D-glucopyranosyl-(1→4)-α-D-glucopyranoside
Synonym:	CNP-G3
MF:	$C_{24}H_{34}ClNO_{18}$
FW:	660.0
Purity:	≥95%
UV/Vis.:	λ_{max}: 291 nm
Supplied as:	A 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

2-Chloro-4-nitrophenyl α-D-maltotrioside is supplied as a solid. A stock solution may be made by dissolving the 2-chloro-4-nitrophenyl α-D-maltotrioside in the solvent of choice, which should be purged with an inert gas. 2-Chloro-4-nitrophenyl α-D-maltotrioside is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of 2-chloro-4-nitrophenyl α-D-maltotrioside in these solvents is approximately 30 mg/ml. 2-Chloro-4-nitrophenyl α-D-maltotrioside is also slightly soluble in ethanol.

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 2-chloro-4-nitrophenyl α-D-maltotrioside can be prepared by directly dissolving the solid in aqueous buffers. The solubility of 2-chloro-4-nitrophenyl α-D-maltotrioside in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

2-Chloro-4-nitrophenyl α-D-maltotrioside is a colorimetric substrate for α-amylases.[1] Upon hydrolysis by α-amylases, 2-chloro-4-nitrophenol is released which can be quantified by colorimetric detection at 405 nm as a measure of enzyme activity. 2-Chloro-4-nitrophenyl α-D-maltotrioside has been used to characterize the activity of human pancreatic or salivary amylase.

Reference

1. Winn-Deen, E.S., David, H., Sigler, G., *et al.* Development of a direct assay for α-amylase. *Clin. Chem.* **34(10)**, 2005-2008 (1988).

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