

PRODUCT INFORMATION



Maltononaose

Item No. 29918

CAS Registry No.: 6471-60-9

Formal Name: O- α -D-glucopyranosyl-(1 \rightarrow 4)-O- α -D-glucopyranosyl-(1 \rightarrow 4)-O- α -D-glucopyranosyl-(1 \rightarrow 4)-O- α -D-glucopyranosyl-(1 \rightarrow 4)-O- α -D-glucopyranosyl-(1 \rightarrow 4)-O- α -D-glucopyranosyl-(1 \rightarrow 4)-D-glucose

MF: $C_{54}H_{92}O_{46}$

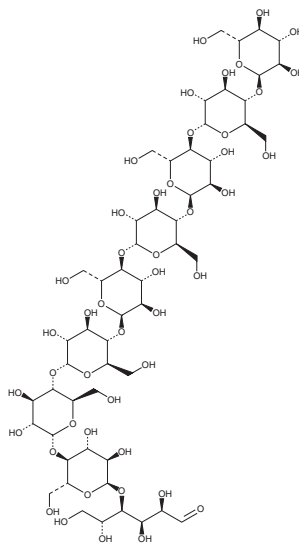
FW: 1,477.3

Purity: $\geq 95\%$

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

Maltononaose is supplied as a crystalline solid. A stock solution may be made by dissolving the maltononaose in the solvent of choice, which should be purged with an inert gas. Maltononaose is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of maltononaose in these solvents is approximately 20 mg/ml.

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 maltononaose can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of maltononaose in PBS, pH 7.2, is approximately 2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Maltononaose is an oligosaccharide comprised of nine α -1,4-linked glucose molecules.^{1,2} It has been used as a substrate to study the cleavage distribution and enzyme kinetics of *B. licheniformis* thermostable α -amylase, as well as the enzyme kinetics of *A. niger* glucoamylase II.^{1,3}

References

1. Ermer, J., Rose, K., Hübner, G., *et al.* Subsite affinities of *Aspergillus niger* glucoamylase II determined with *p*-nitrophenylmaltooligosaccharides. *Biol. Chem. Hoppe Seyler* **374**(2), 123-128 (1993).
2. Uchida, R., Nasu, A., Tobe, K., *et al.* A convenient preparation of maltooctaose and maltononaose by the coupling reaction of cyclomaltodextrinase. *Carbohydr. Res.* **287**(2), 271-274 (1996).
3. Tran, P.L., Lee, J.-S., and Park, K.-H. Experimental evidence for a 9-binding subsite of *Bacillus licheniformis* thermostable α -amylase. *FEBS Lett.* **588**(4), 620-624 (2014).

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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