

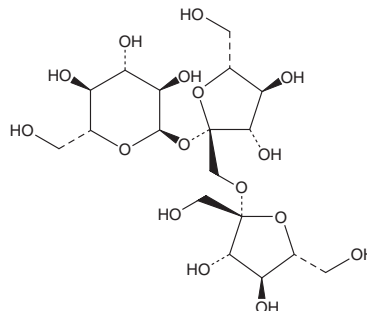
PRODUCT INFORMATION



1-Kestose

Item No. 34346

CAS Registry No.: 470-69-9
Formal Name: O-β-D-fructofuranosyl-(2→1)-β-D-fructofuranosyl α-D-glucopyranoside
MF: C₁₈H₃₂O₁₆
FW: 504.4
Purity: ≥95%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Natural/Source unknown



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

Laboratory Procedures

1-Kestose is supplied as a solid. Aqueous solutions of 1-kestose can be prepared by directly dissolving the solid in aqueous buffers. The solubility of 1-kestose in PBS (pH 7.2) is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

1-Kestose is a fructooligosaccharide that has been found in onions and has prebiotic and antidiabetic activities.¹⁻³ It increases levels of the beneficial bacterium *B. longum* in diluted adult human fecal samples when added to culture broth at a concentration of 0.5% w/v.² Dietary supplementation with 1-kestose increases the proportion of cecal *Anaerostipes* and *Bifidobacterium* content, improves glucose tolerance, and prevents the development of type 2 diabetes in Otsuka Long-Evans Tokushima Fatty (OLETF) rats.³

References

1. Tochio, T., Kadota, Y., Tanaka, T., *et al.* 1-Kestose, the smallest fructooligosaccharide component, which efficiently stimulates *Faecalibacterium prausnitzii* as well as bifidobacteria in humans. *Foods* **7(9)**, 140 (2018).
2. Endo, A., Hirano, K., Ose, R., *et al.* Impact of kestose supplementation on the healthy adult microbiota in *in vitro* fecal batch cultures. *Anaerobe* **61**, 102076 (2020).
3. Watanabe, A., Kadota, Y., Kamio, R., *et al.* 1-Kestose supplementation mitigates the progressive deterioration of glucose metabolism in type 2 diabetes OLETF rats. *Sci. Rep.* **10(1)**, 15674 (2020).

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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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