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ONLINE ISSN : 1880-7291

PRINT ISSN : 1344-7882

Journal of Applied Glycoscience

Vol. 55 (2008) , No. 1 pp.1-3

[\[PDF \(278K\)\]](#) [\[References\]](#)**Synthesis and Structure Analysis of Glucosylpsicose Produced by Cyclomaltodextrin Glucanotransferase**Hisaka Oshima¹⁾, Isao Kimura¹⁾, Kenji Morimoto²⁾ and Ken Izumori²⁾

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(Received April 19, 2007)

(Accepted September 3, 2007)

Glucosylpsicose was synthesized by transglycosylation with α -cyclodextrin and D-psicose using cyclomaltodextrin glucanotransferase (EC 2.4.1.19; CGTase). The structure of glucosylpsicose was analyzed by HPLC to determine sugar composition and molecular mass, by methylation analysis using GC-MS and by α - and β -glucosidase treatments to determine linkage, and ¹H- and ¹³C-NMR spectrometries to obtain the anomeric configuration of the glycosidic linkage. By chemical analysis, it was found that the structure of glucosylpsicose is 1-*o*- α -D-glucopyranosyl-D-psicose.

Key words: D-psicose, cyclodextrin, cyclomaltodextrin glucanotransferase[\[PDF \(278K\)\]](#) [\[References\]](#)Download Meta of Article [\[Help\]](#)[RIS](#)[BibTeX](#)

To cite this article:

Hisaka Oshima, Isao Kimura, Kenji Morimoto and Ken Izumori: Synthesis and Structure Analysis of Glucosylpsicose Produced by Cyclomaltodextrin Glucanotransferase . *J. Appl. Glycosci.*, **55**, 1-3 (2008) .



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