

6G-fructosyltransferase

Cat. No. EXWM-2472

Lot. No. (See product label)

Introduction

Description

Inulins are polysaccharides consisting of linear or branched D-fructofuranosyl chains attached to the fructosyl residue of sucrose by a $\beta(2\rightarrow1)$ linkage. This enzyme catalyses the transfer of the terminal (2 \rightarrow 1)-linked -D-fructosyl group of an inulin chain onto O-6 position of the glucose residue of another inulin molecule. For example, if 1-kestose [1F-(β -D-fructofuranosyl)sucrose] is both the donor and recipient in the reaction shown above, i.e., if $m = 1$ and $n = 1$, then the products will be sucrose and 6G-di- β -D-fructofuranosylsucrose. In this notation, the superscripts F and G are used to specify whether the fructose or glucose residue of the sucrose carries the substituent. Alternatively, this may be indicated by the presence and/or absence of primes (see <http://www.chem.qmul.ac.uk/iupac/2carb/36.html#362>). Sucrose cannot be a donor substrate in the reaction (i.e. m cannot be zero) and inulin cannot act as an acceptor. Side reactions catalysed are transfer of a β -D-fructosyl group between compounds of the structure 1F-(1- β -D-fructofuranosyl) m -6G-(1- β -D-fructofuranosyl) n sucrose, where $m \geq 0$ and $n = 1$ for the donor, and $m \geq 0$ and $n \geq 0$ for the acceptor.

Synonyms

fructan:fructan 6G-fructosyltransferase; 1F(1- β -D-fructofuranosyl) m sucrose:1F(1- β -D-fructofuranosyl) n sucrose 6G-fructosyltransferase; 6G-FFT; 6G-FT; 6G-fructotransferase

Product Information

Form

Liquid or lyophilized powder

EC Number

EC 2.4.1.243

CAS No.

79633-28-6

Reaction

$[1-\beta\text{-D-fructofuranosyl-(2}\rightarrow\text{1)-}]_m + 1-\alpha\text{-D-glucopyranoside} + [1-\beta\text{-D-fructofuranosyl-(2}\rightarrow\text{1)-}]_n - \alpha\text{-D-glucopyranoside} = [1-\beta\text{-D-fructofuranosyl-(2}\rightarrow\text{1)-}]_m - \alpha\text{-D-glucopyranoside} + [1-\beta\text{-D-fructofuranosyl-(2}\rightarrow\text{1)-}]_n - \beta\text{-D-fructofuranosyl-(2}\rightarrow\text{6)-}\alpha\text{-D-glucopyranoside}$ ($m > 0$; $n \geq 0$)

Notes

This item requires custom production and lead time is between 5-9 weeks. We can custom produce according to your specifications.

Storage and Shipping Information

Storage

Store it at +4 °C for short term. For long term storage, store it at -20 °C~-80 °C.