Invertase (EC 3.2.1.26), *Saccharomyces cerevisiae*

Catalogue number:

AE00241, 100000 U (13.5 mL)

Description

Recombinant invertase (β-fructofuranosidase; EC 3.2.1.26) is purified from a modified E. coli strain. Invertase is an enzyme that catalyzes the hydrolysis of sucrose. Related to invertases are sucrases. Invertases and sucrases hydrolyze sucrose to give the same mixture of glucose and fructose. Invertases cleave the O-C(fructose) bond, whereas the sucrases cleave the O-C(glucose) bond. β-Fructofuranosidases (or invertases) catalyse the commercially-important biotransformation of sucrose into short-chain fructooligosaccharides with wide-scale application as a prebiotic in the functional foods and pharmaceutical industries.

The enzyme is provided in 3.2 M ammonium sulphate.

Purity

Invertase has been determined to be >95% pure, according to SDS polyacrylamide gel electrophoresis (PAGE) followed by Blue Safe staining (Figure 1).

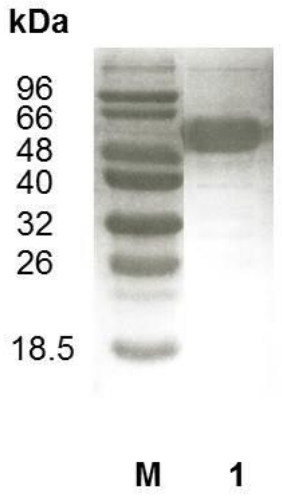

Figure 1. SDS-PAGE analysis of *S. cerevisiae* invertase. Electrophoresis was performed using a 14% polyacrylamide gel. Lane M, molecular weight marker; Lane 1, purified invertase (60.64 kDa).

Storage temperature

Invertase should be stored at 2°C to 8°C.

Temperature and pH optimum

The optimum pH and temperature are 4.6 and 40 °C, respectively.

Specific activity

7600 U/ml.

Unit definition

One Unit of invertase was defined as the amount enzyme required to produce 1 µmole of D-glucose and 1 µmole of D-fructose, in a reaction mixture containing 50mM MES buffer, pH 4.6, BSA (1 mg/ml) and 30 mM sucrose, at 40^{o}C. Released D-glucose was monitored using D-Glucose HK, UV method (AK00031).

V2202

Certificate of Analysis

Test	Criteria	Result
Protein purity	Purity in line with the stated value	Meets specification
Activity	Activity in line with the stated value	Meets specification

Approved by: 

Patrícia Ponte
Senior Manager, Quality Systems

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