

Invertase (EC 3.2.1.26), *Saccharomyces cerevisiae*

Catalogue number	Presentation
AE00241	100 kU (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) catalyze 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).

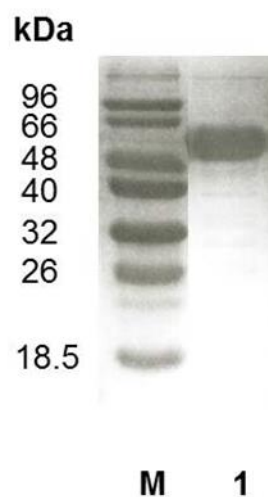


Figure 1. SDS-PAGE analysis of *S. cerevisiae* invertase. Electrophoresis was performed using a 14% polyacrylamide gel. Lane M, molecular weight marker; Lane 1, purified invertase (60.64 kDa).

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.

Activity

7600 U/ml

Unit Definition

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

For life science research only. Not for use in diagnostic procedures.