β-Glucosidase

G755171

Storage temperature: -20℃. Avoid freeze/thaw cycle.

Introduction:

Beta-glucosidase is a glucosidase enzyme that acts upon β1->4 bonds linking two glucose or glucose-substituted molecules (i.e., the disaccharide cellobiose). It is one of the cellulases, enzymes involved in the decomposition of cellulose and related polysaccharides; more specifically, an exocellulase with specificity for a variety of beta-D-glycoside substrates. It catalyzes the hydrolysis of terminal non-reducing residues in beta-D-glucosides with release of glucose.

Applications:

This enzyme is useful for structural investigations of carbohydrates and for the enzymatic determination of α-amylase when coupled with α-glucosidase in clinical analysis.

Product Information:

Source: Sweet almond.

Appearance: Light yellow amorphous powder, lyophilized.

Form: Freeze dried powder.

Molecular Weight:approx. 110 kDa.

Activity: 10U/mg-solid or more (containing approx. 50% of BSA).

Contaminants: α-Amylase < 5.0×10^{-4} %.

Isoelectric point: 7.3.

pH Stability: pH 6.0-9.0 (25°C, 64hr).

Optimum pH: 5.5.

Thermal stability: below 50°C (pH 7.3, 1hr).

Optimum temperature: 50-55°C.

Michaelis Constant: 2.8×10^{-3} M (p-Nitrophenyl-ß-D-glucopyranoside), 3.3×10^{-3} M (2,4-Dichlorophenyl-ß-D-glucopyranoside).

Structure: 2 subunits per mol of enzyme.

Stabilizers: Bovine serum albumin (BSA), glutathione (reduced).

Stability: Stable at -20°C for at least 6 months (A decrease in activity of ca. 10% may occur at 5°C within 6 months).