Creative Enzymes®

Native Sweet almond β-Glucosidase

Cat. No. DIA-195

Lot. No. (See product label)

Introduction

Description	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.
Synonyms	EC 3.2.1.21; gentiobiase; cellobiase; emulsin; elaterase; aryl-beta-glucosidase; beta-D-glucosidase; beta-glucoside glucohydrolase; arbutinase; amygdalinase; p-nitrophenyl beta-glucosidase; primeverosidase; amygdalase; linamarase; salicilinase; beta-1,6-glucosidase.

Product Information

Source	Sweet almond
Appearance	Light yellow amorphous powder, lyophilized
Form	Freeze dried powder
EC Number	EC 3.2.1.21
CAS No.	9001-22-3
Molecular Weight	approx. 110 kDa
Activity	GradeⅡ 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)

Storage and Shipping Information

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)