Creative Enzymes®

β-Glucosidase, thermostable, Recombinant

Cat. No. NATE-0772

Lot. No. (See product label)

Introduction

Description	Beta-glucosidase is a glucosidase enzyme located in on the brush border of the small intestine 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	β-Glucosidase is a lysosomal enzyme which breaks β1->4 bonds that link oligosaccharides. β-Glucosidase is used to study Gaucher disease and potential treatments such as enzyme replacement therapy. β-Glucocerebrosidase is an enzyme with glucosylceramidase activity (EC 3.2.1.45) that is needed to cleave, by hydrolysis, the beta-glucosidic linkage of the chemical glucocerebroside, an intermediate in glycolipid metabolism. It is localized in the lysosome and has a molecular weight of 59700 Daltons.
Synonyms	9001-22-3; β-Glucosidase, thermostable; 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; β-Glucocerebrosidase; acid β-glucosidase

Product Information

Source	E. coli
Form	liquid, Supplied as a solution in 50 mM Tris-HCl, pH 7.5, 100 mM NaCl, and 25% glycerol.
CAS No.	9001-22-3
Molecular Weight	mol wt 53 kDa
Purity	> 90% (SDS-PAGE) 19-21 mg protein/mL (UV)
Activity	> 24 units/mg protein
Unit Definition	One unit will produce 1 µmole of o-nitrophenol from 2-nitrophenyl β-D-glucopyranoside per minute at pH 5.8 at 70°C.

Usage and Packaging

Package	expressed in E. coli

Storage and Shipping Information

Storage	2-8°C