

## Native Sweet almond $\beta$ -Glucosidase

Cat. No. DIA-195

Lot. No. (See product label)

### Introduction

<b>Description</b>	Beta-glucosidase is a glucosidase enzyme that acts upon $\beta$ 1- $\rightarrow$ 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.
<b>Applications</b>	This enzyme is useful for structural investigations of carbohydrates and for the enzymatic determination of $\alpha$ -amylase when coupled with $\alpha$ -glucosidase in clinical analysis.
<b>Synonyms</b>	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; salicilase; beta-1,6-glucosidase.

### Product Information

<b>Source</b>	Sweet almond
<b>Appearance</b>	Light yellow amorphous powder, lyophilized
<b>Form</b>	Freeze dried powder
<b>EC Number</b>	EC 3.2.1.21
<b>CAS No.</b>	9001-22-3
<b>Molecular Weight</b>	approx. 110 kDa
<b>Activity</b>	Gradell 10U/mg-solid or more (containing approx. 50% of BSA)
<b>Contaminants</b>	$\alpha$ -Amylase < $5.0 \times 10^{-4}\%$
<b>Isoelectric point</b>	7.3
<b>pH Stability</b>	pH 6.0-9.0 (25°C, 64hr)
<b>Optimum pH</b>	5.5
<b>Thermal stability</b>	below 50°C (pH 7.3, 1hr)
<b>Optimum temperature</b>	50-55°C
<b>Michaelis Constant</b>	$2.8 \times 10^{-3}\text{M}$ (p-Nitrophenyl- $\beta$ -D-glucopyranoside), $3.3 \times 10^{-3}\text{M}$ (2,4-Dichlorophenyl- $\beta$ -D-glucopyranoside)
<b>Structure</b>	2 subunits per mol of enzyme
<b>Stabilizers</b>	Bovine serum albumin (BSA), glutathione (reduced)

### ***Storage and Shipping Information***

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