Creative Enzymes
Diagnostic Enzymes

# Native Sweet almond β-Glucosidase

## Product Information

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| **Cat#** | DIA-195 |
| **Abbr** | β-Glucosidase (Sweet almond) |
| **Alias** | elaterase |
| **Similar** | β-Glucosidase |
| **Source** | Sweet almond |
| **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. |
| **Appearance** | Light yellow amorphous powder, lyophilized |
| **Form** | Freeze dried powder |
| **Enzyme Commission Number** | EC 3.2.1.21 |
| **Activity** | 10U/mg-solid or more (containing approx. 50% of BSA) |
| **CAS No.** | 9001-22-3 |
| **Contaminants** | α-Amylase < $5.0\times10^{-4}$% |
| **Molecular Weight** | approx. 110 kDa |
| **Isoelectric point** | 7.3 |
| **pH Stability** | pH 6.0-9.0 (25°C, 64hr) |

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| **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 |
| **Optimum pH** | 5.5 |
| **Optimum temperature** | 50-55°C |
| **Thermal stability** | below 50°C (pH 7.3, 1hr) |
| **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) |
| **Stabilizers** | Bovine serum albumin (BSA), glutathione (reduced) |
| **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. |

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