

Chitinase from Clostridium thermocellum, Recombinant

Cat. No. NATE-1201

Lot. No. (See product label)

Introduction

Description Chitinase is an extracellular enzyme complex that degrades chitin and has a molecular mass of approximately 30 kDa. Chitin is degraded to N-acetyl-D-glucosamine in 2 enzymatic reactions. Firstly, chitobiose units are removed from chitin by chitodextrinase-chitinase. The second reaction involves N-acetyl-glucosaminidase-chitobiase, which cleaves the disaccharide to its monomer subunits (that comprise of N-acetyl-D-glucosamine).

Synonyms Chitinase; chitodextrinase; 1,4- β -poly-N-acetylglucosaminidase; poly- β -glucosaminidase; β -1,4-poly-N-acetyl glucosaminidase; poly[1,4-(N-acetyl- β -D-glucosaminide)] glycanohydrolase; (1->4)-2-acetamido-2-deoxy-beta-D-glucan glycanohydrolase; EC 3.2.1.14

Product Information

Source Clostridium thermocellum ATCC 27405

Form Glycerol/buffer solution

EC Number EC 3.2.1.14

Molecular Weight 43927.1 Da

Purity > 80 % as judged by SDS-PAGE

Activity 25 U/mg

Optimum pH 6.5 (stable from 4.5 - 6.5)

Optimum temperature 60°C (stable up to 65°C)

Unit Definition One unit is defined as the amount of enzyme required to release 1 μ mol of p-nitrophenol per minute from p-nitrophenyl- β -D-triacetylchitotriose in phosphate-Citrate (PC) buffer (50 mM K₂HPO₄, 12 mM citric acid, pH 6.5) at 60°C.

Storage and Shipping Information

Storage Store at -20°C (shipped at room temperature)