Creative Enzymes®

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 glucosamidinase; 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 1μmol of p-nitrophenol per minute from p-nitrophenyl-β-Dtriacetylchitotriose 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)