

Cellulase 5C & Acetyl xylan esterase 2A from Clostridium thermocellum, Recombinant

Cat. No. NATE-1374

Lot. No. (See product label)

Introduction

Description Cellulase is any of several enzymes produced chiefly by fungi, bacteria, and protozoans that catalyze cellulolysis, the decomposition of cellulose and of some related polysaccharides; specifically, the hydrolysis of the 1,4-beta-D-glycosidic linkages in cellulose, hemicellulose, lichenin, and cereal beta-D-glucans. Cellulases break down the cellulose molecule into monosaccharides ("simple sugars") such as beta-glucose, or shorter polysaccharides and oligosaccharides. The name is also used for any naturally occurring mixture or complex of various such enzymes, that act serially or synergistically to decompose cellulosic material.

Synonyms Cellulase, thermostable; 1,4-(1,3:1,4)- β -D-Glucan 4-glucano-hydrolase; EC 3.2.1.4; Cellulase; endo-1,4- β -D-glucanase; β -1,4-glucanase; β -1,4-endoglucan hydrolase; cellulase A; cellulysin AP; endoglucanase D; alkali cellulase; cellulase A 3; celludextrinase; 9.5 cellulase; avicelase; pancellase SS

Product Information

Species	Clostridium thermocellum
Source	E. coli
Form	35 mM NaHepes buffer, pH 7.5, 750 mM NaCl, 200 mM imidazol, 3.5 mM CaCl ₂ , 0.02% sodium azide and 25% (v/v) glycerol
EC Number	EC 3.2.1.4 & EC 3.2.1.72
CAS No.	9012-54-8
Molecular Weight	88.9 kDa
Purity	>90% by SDS-PAGE
Activity	Cellulase 5C: 130 U/mg and Acetyl xylan esterase 2A: 74 U/mg
Concentration	1 mg/mL
Optimum pH	6.5-8
Optimum temperature	60 °C
Specificity	Soluble forms of cellulose and 1,3-1,4- β -glucans (GH5) while releasing acetate from acetylated xylan, glucomannan and galactoglucomannan (CE2)

Storage and Shipping Information

Storage This enzyme is shipped at room temperature but should be stored at -20 °C.