Creative Enzymes®

# Cellulase 5E from Clostridium thermocellum, Recombinant

*Cat. No. NATE-1373*

*Lot. No.* (See product label)

## Introduction

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| ***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; celluase A; cellulosin AP; endoglucanase D; alkali cellulase; cellulase A 3; celludextrinase; 9.5 cellulase; avicelase; pancellase SS |

## Product Information

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| ***Species*** | Clostridium thermocellum |
| ***Source*** | E. coli |
| ***Form*** | 35 mM NaHepes buffer, pH 7.5, 750 mM NaCl, 200 mM imidazol, 3.5 mM CaCl2, 0.02% sodium azide and 25% (v/v) glycerol |
| ***EC Number*** | EC 3.2.1.4 |
| ***CAS No.*** | 9012-54-8 |
| ***Molecular Weight*** | 37.2 kDa |
| ***Purity*** | >90% by SDS-PAGE |
| ***Activity*** | 1200 U/mg |
| ***Concentration*** | 2 mg/ml |
| ***Optimum pH*** | 4.0–6.0 |
| ***Optimum temperature*** | 60 °C |
| ***Specificity*** | 1,4-β-cellulosic substrates |

## Storage and Shipping Information

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