

## Cellulase from *Cellvibrio mixtus*, Recombinant

Cat. No. NATE-1200

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)- $\beta$ -D-Glucan 4-glucano-hydrolase; EC 3.2.1.4; Cellulase; endo-1,4- $\beta$ -D-glucanase;  $\beta$ -1,4-glucanase;  $\beta$ -1,4-endoglucan hydrolase; cellulase A; cellulysin AP; endoglucanase D; alkali cellulase; cellulase A 3; celludextrinase; 9.5 cellulase; avicelase; pancellase SS

### Product Information

#### Source

*Cellvibrio mixtus* ATCC 12120

#### Form

Supplied in 35 mM HEPES buffer, pH 7.5, containing 750 mM NaCl, 200 mM imidazole, 3.5 mM CaCl<sub>2</sub> and 25 % (v/v) glycerol.

#### EC Number

EC 3.2.1.4

#### CAS No.

9012-54-8

#### Molecular Weight

33835.5 Da

#### Purity

> 95 % as judged by SDS-PAGE

#### Activity

950 U/mg

#### Concentration

3325 U/ml

#### Optimum pH

7.5 (stable from 6 – 8.5)

#### Optimum temperature

37°C (stable up to 45°C)

#### Unit Definition

One unit is defined as the amount of enzyme required to release 1 $\mu$ mol of glucose-reducing-sugar equivalents per minute from barley  $\beta$ -glucan in 50 mM Tris-HCl, pH 7.5, 5 mM CaCl<sub>2</sub>, at 37°C

### Storage and Shipping Information

#### Storage

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