

## Lichenase 26A & Cellulase 5E from *Clostridium thermocellum*, Recombinant

Cat. No. NATE-1427

Lot. No. (See product label)

### Introduction

#### Description

$\beta$ -glucanases degrade  $\beta$ -1,4-glucans of cellulose, xyloglucan and  $\beta$ -1,4-xylan.  $\beta$ -Glucanase represents a group of carbohydrate enzymes which break down glycosidic bonds within beta-glucan. It forms the main constituent of fungal cell walls and could be a potential structural and storage polysaccharide of marine macro-algae. It has the ability to degrade fungal cell walls and may be involved in defense mechanism of plants against pathogenic fungi.

#### Synonyms

endo-1,3- $\beta$ -D-glucanase; laminarinase; laminaranase;  $\beta$ -1,3-glucanase;  $\beta$ -1,3-1,4-glucanase; endo-1,3- $\beta$ -glucanase; endo- $\beta$ -1,3 (4)-glucanase; endo- $\beta$ -1,3-1,4-glucanase; endo- $\beta$ -(1 $\rightarrow$ 3)-D-glucanase; endo-1,3-1,4- $\beta$ -D-glucanase; endo- $\beta$ -(1-3)-D-glucanase; endo- $\beta$ -1,3-glucanase IV; endo-1,3- $\beta$ -D-glucanase; 1,3-(1,3; 1,4)- $\beta$ -D-glucan 3 (4)-glucanohydrolase; EC 3.2.1.73

### 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<sub>2</sub>, 0.02% sodium azide and 25% (v/v) glycerol

#### EC Number

EC 3.2.1.73 & EC 3.2.1.4

#### CAS No.

37288-51-0

#### Molecular Weight

70.4 kDa

#### Purity

>90% by SDS-PAGE

#### Activity

800 U/mg

#### Concentration

2 mg/mL

#### Optimum pH

5.0-7.0

#### Optimum temperature

60 °C

#### Specificity

Bi-functional enzyme that hydrolyses mixed 1,3-1,4- $\beta$ -glucans (GH26) and 1,4- $\beta$ -glucans (GH5)

### Storage and Shipping Information

#### Storage

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