

## Pectate Lyase from *Clostridium acetobutylicum*, Recombinant

Cat. No. NATE-1223

Lot. No. (See product label)

### Introduction

**Description** Pectate lyase (EC 4.2.2.2) is an enzyme involved in the maceration and soft rotting of plant tissue. Pectate lyase is responsible for the eliminative cleavage of pectate, yielding oligosaccharides with 4-deoxy- $\alpha$ -D-mann-4-enuronosyl groups at their non-reducing ends. The protein is maximally expressed late in pollen development. It has been suggested that the pollen expression of pectate lyase genes might relate to a requirement for pectin degradation during pollen tube growth. This enzyme belongs to the family of lyases, specifically those carbon-oxygen lyases acting on polysaccharides.

**Synonyms** (1- $\rightarrow$ 4)- $\alpha$ -D-galacturonan lyase; polygalacturonic transeliminase; pectic acid transeliminase; polygalacturonate lyase; endopectin methyltranseliminase; pectate transeliminase; endogalacturonate transeliminase; pectic acid lyase; pectic lyase;  $\alpha$ -1,4-D-endopolygalacturonic acid lyase; PGA lyase; PPase-N; endo- $\alpha$ -1,4-polygalacturonic acid lyase; polygalacturonic acid lyase; pectin trans-eliminase; Polygalacturonic acid trans-eliminase; Pectate lyase; EC 4.2.2.2

### Product Information

**Source** Clostridium acetobutylicum ATCC 824

**Form** Supplied in 3.2 M ammonium sulphate

**EC Number** EC 4.2.2.2

**CAS No.** 9015-75-2

**Molecular Weight** 26628.7 Da

**Purity** > 95 % as judged by SDS-PAGE

**Activity** 3.2 U/mg

**Concentration** 21 U/ml

**Optimum pH** ~ 7.0

**Optimum temperature** 37°C

**Unit Definition** One unit is defined as the amount of enzyme required to release 1  $\mu$ mol of 4,5-unsaturated galacturonide product per minute from 1.3 mg/mL polygalacturonic acid in 50 mM Tris-HCl buffer, pH 8.5, containing 0.1 mM CaCl<sub>2</sub>, at 37°C, as measured at 232 nm.

### Usage and Packaging

**Preparation Instructions** Agitate vial sufficiently to fully homogenise enzyme precipitate before use.

### Storage and Shipping Information

**Storage** Store at 4°C (shipped at room temperature)