PECTATE LYASE from *Cellvibrio japonicus* (Lot 130903b)

Recombinant

E-PLYCJ **05/20**

(EC 4.2.2.2) pectate lyase; (1,4)-alpha-D-galacturonan lyase
CAZy Family: PL10
CAS: 9015-75-2

PROPERTIES

1. ELECTROPHORETIC PURITY:

- Single band on SDS-gel electrophoresis (MW ~38,035)
- One major band on isoelectric focusing (pI ~ 9.3)

2. SPECIFIC ACTIVITY:

470 U/mg protein (on polygalacturonic acid) at pH 10.0 and 40°C.

One Unit of pectate lyase activity is defined as the amount of enzyme required to release one µmole of 4,5-unsaturated product per minute from polygalacturonic acid (1.25 mg/mL) in the presence of calcium chloride (1 mM) in CAPS buffer (50 mM), pH 10.0 at 40°C.

3. SPECIFICITY:

Eliminative cleavage of (1,4)-α-D-galacturonan to give oligosaccharides with 4-deoxy-α-D-galact-4-enuronosyl groups at their non-reducing ends.

4. RELATIVE RATES OF HYDROLYSIS OF SUBSTRATES:

Enzyme	Substrate	%
Pectate lyase	Polygalacturonic acid	100
endo-Polygalacturonanase	Polygalacturonic acid	< 0.00001
endo-Arabinanase	AZCL-Arabinan	< 0.00001
endo-Galactanase	AZCL-Galactan (potato)	< 0.00001

Action on polygalacturonic acid was determined at pH 10.0, 40°C and monitored at 235 nm. *endo*-Polygalacturonanase, *endo*-galactanase and *endo*-arabinanase were assayed at pH 4.5 and 40°C with the appropriate substrates.

5. PHYSICOCHEMICAL PROPERTIES:

Recommended conditions of use are at pH 10.0 and up to 47°C

pH Optima:	10.0
pH Stability:	6.5-10.5
Temperature Optima:	60°C
Temperature Stability:	up to 47°C (> 75% control activity after 20 min incubation at temperature)

6. STORAGE CONDITIONS:

The enzyme is supplied as an ammonium sulphate suspension containing 0.02% (w/v) sodium azide and should be stored at 4°C. For assay, this enzyme should be diluted in CAPS buffer (50 mM) conaining calcium chloride (1 mM), pH 10.0. **Swirl to mix the enzyme immediately prior to use.**