



endo-POLYGALACTURONANASE from *Pectobacterium carotovorum* (Lot 180801a)

Recombinant

E-PGALPC

06/19

(EC 3.2.1.15) polygalacturonase; (1->4)-alpha-D-galacturonan glycanohydrolase
CAZy Family: GH28
CAS: 9032-75-1

PROPERTIES

1. ELECTROPHORETIC PURITY:

- Single band on SDS-gel electrophoresis (MW ~ 39,818)
- One major band on isoelectric focusing (pI ~ 9.43)

2. SPECIFIC ACTIVITY:

540 U/mg protein (on polygalacturonic acid) at pH 5.5 and 40°C

One Unit of *endo*-polygalacturonanase activity is defined as the amount of enzyme required to release one μ mole of galacturonic acid per minute from polygalacturonic acid (5 mg/mL) in sodium acetate buffer (100 mM), pH 5.5 at 40°C.

3. SPECIFICITY:

Random hydrolysis of α -1,4-D-galactosiduronic linkages in pectate and polygalacturonans.

4. PHYSICOCHEMICAL PROPERTIES:

Recommended conditions of use are at pH 5.0-6.0 and up to 50°C

pH Optima: 6.0

pH Stability: 3.5-8.0 (> 75% control activity after 24 h at 4°C)

Temperature Optima: 50°C (10 min reaction)

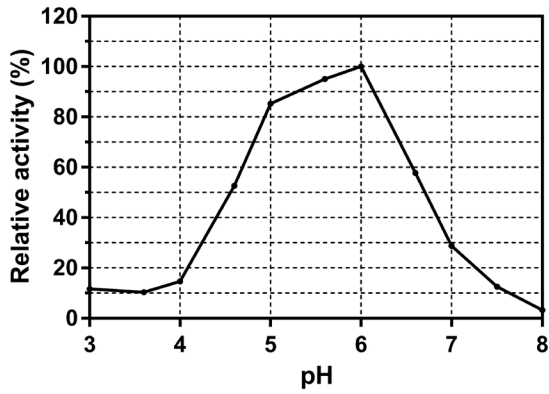
Temperature Stability: up to 50°C (> 75% control activity after 15 min incubation at temperature)

5. STORAGE CONDITIONS:

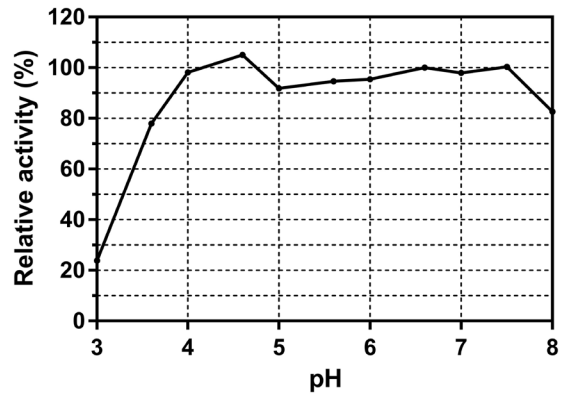
The enzyme is supplied as an ammonium sulphate suspension containing 0.02% (w/v) sodium azide and should be stored at 4°C. For assay, this enzyme should be diluted in sodium acetate buffer (100 mM), pH 5.5 containing 1 mg/mL BSA. **Swirl to mix the enzyme immediately prior to use.**

6. EXPERIMENTAL DATA:

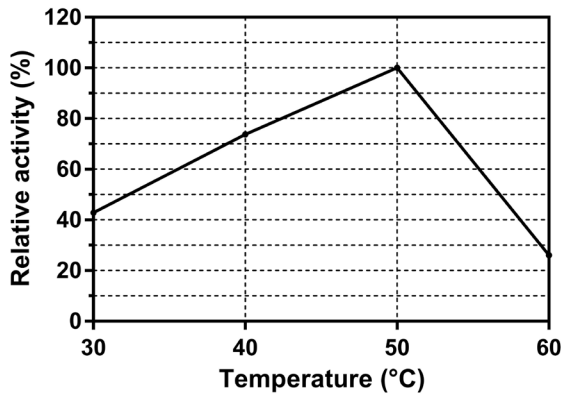
pH Optima



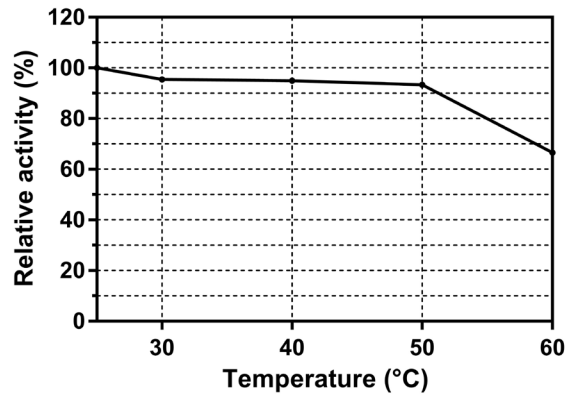
pH Stability



Thermal Optima



Thermal Stability



7. REFERENCES:

Herlache, T. C., Hotchkiss, A. T., Jr, Burr, T. J. & Collmer, A. (1997). Characterization of the *Agrobacterium vitis* *pehA* gene and comparison of the encoded polygalacturonase with the homologous enzymes from *Erwinia carotovora* and *Ralstonia solanacearum*. *Applied and Environmental Microbiology*, 63(1), 338–346.