exo-POLYGALACTURONASE from *Yersinia enterocolitica* (Lot 160404a)

Recombinant

E-EXPGA **02/20**

(EC 3.2.1.82) *exo*-poly-alpha-galacturonosidase
CAZy Family: GH28
CAS: 37288-58-7

PROPERTIES

1. ELECTROPHORETIC PURITY:

- Single band on SDS-gel electrophoresis (MW ~ 64,000)
- One major band on isoelectric focusing (pI ~ 6.5)

2. SPECIFIC ACTIVITY:

80 U/mg protein (on polygalacturonic acid) at pH 6.0 and 60°C;

~ 35 U/mg protein (on polygalacturonic acid) at pH 6.0 and 40°C

One Unit of *exo*-polygalacturonase activity is defined as the amount of enzyme required to release one µmole of reducing-sugar equivalents per minute from polygalacturonic acid (10 mg/mL) in potassium phosphate buffer (100 mM) pH 6.0.

3. SPECIFICITY:

Hydrolysis of polygalacturonic acid from the non-reducing end, releasing digalacturonate.

4. PHYSICOCHEMICAL PROPERTIES:

Recommended conditions of use are at pH 6.0-7.0 and up to 60°C

pH Optima:	6.0
pH Stability:	4.0-9.0 (> 75% control activity after 24 h at 4°C)
Temperature Optima:	60°C (10 min reaction)
Temperature Stability:	up to 50°C (diluted with 1 mg/mL BSA)

5. STORAGE CONDITIONS:

The enzyme is supplied as an ammonium sulphate suspension in 0.02% (w/v) sodium azide and should be stored at 4°C. For assay, this enzyme should be diluted in potasssium phosphate buffer (100 mM), pH 6.0 containing 1 mg/mL BSA. **Swirl to mix the enzyme immediately prior to use.**

6. REFERENCES:

Abbott, D.W. & Boraston, A. B. (2007). The Structural Basis for Exopolygalacturonase Activity in a Family 28 Glycoside Hydrolase. *J. Mol. Biol.*, 368, 1215–1222.

7. EXPERIMENTAL DATA: