**XANTHAN LYASE from Bacillus sp.** (Lot 150901a)

**Recombinant**

**E-XANLB**

(EC 4.2.2.12) xanthan lyase
CAZy Family: PL8

**PROPERTIES**

1. **ELECTROPHORETIC PURITY:**
   - Single band on SDS-gel electrophoresis (MW ~ 81,600)
   - Single major band on isoelectric focusing (pI ~ 5.4)

2. **SPECIFIC ACTIVITY:**
   1800 U/mg protein (on xanthan gum) at pH 6.0 and 40°C.

   *One Unit* of xanthan lyase activity is defined as the amount of enzyme required to produce an increase in absorbance of 1.0 per minute at 235 nm and 40°C in the following reaction conditions:

   - HEPES buffer (100 mM) pH 6.0: 0.8 mL
   - Xanthan Gum (5 mg/mL): 0.2 mL
   - Xanthan Lyase: 0.1 mL

3. **SPECIFICITY:**
   Beta-elimination cleavage of the terminal \(\beta\)-D-mannosyl-\(\beta\)-D-1,4-glucuronosyl linkage of the side-chain of xanthan.

4. **PHYSICOCHEMICAL PROPERTIES:**
   - pH Optima: 6.0
   - pH Stability: 4.0 - 9.0 (> 75% control activity after 24 hours at 4°C)
   - Temperature Optima: 40°C (10 min. reaction)
   - Temperature Stability: up to 40°C (> 90% control activity after 15 min.)

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 HEPES buffer (100 mM), pH 6.0 containing 0.5 mg/mL BSA. **Swirl to mix the enzyme immediately prior to use.**

6. **REFERENCES:**