Megazyme

PULLULANASE M2 from *Bacillus licheniformis* (Lot 110402a)

E-PULBL **09/15**

(EC 3.2.1.41) pullulan 6-alpha-glucanohydrolase

PROPERTIES

1. ELECTROPHORETIC PURITY:

- Single major band on SDS-gel electrophoresis (MW = 113,000); some minor bands.
- Two bands on isoelectric focusing (pI 4.5 & 4.6).

2. SPECIFIC ACTIVITY AND LEVEL OF OTHER ACTIVITIES:

Specific activity on pullulan (borohydride reduced) at a concentration of 5 mg/mL is 37 Units/mg at pH 5.0 and 40°C.

One unit of enzyme activity is defined as the amount of enzyme required to release one micromole of glucose reducing-sugar-equivalents from pullulan per minute at pH 5.0 and 40°C.

3. CONTAMINANTS:

Contamination with α-glucosidase (maltase) is less than 0.001% and with α-amylase is less than 0.01% (on an activity basis).

4. PHYSICOCHEMICAL PROPERTIES:

pH Optima:	4.5-5.5
pH Stability:	3.5-8.0 (40°C, 30 min)
Temperature Optima:	55-60°C (pH 4.5, 5 min)
Temperature Stability:	< 50°C (pH 4.5, 30 min).

5. STORAGE CONDITIONS:

The enzyme is supplied as an ammonium sulphate suspension in 0.02% sodium azide and should be stored at 4°C.

6. GENERAL COMMENTS:

This enzyme is specific for the hydrolysis of 1,6-linkages in pullulan, starch and glycogen, and thus is suitable for structural studies of these polysaccharides.

For the assay, enzyme preparation is diluted in 0.1M sodium acetate buffer pH 5.0 containing BSA (0.5 mg/mL). If BSA is excluded from the buffer lower activities are obtained.