



PULLULANASE M1 from *Klebsiella planticola* (Lot 11201)

E-PULKP

06/03

PROPERTIES

1. ELECTROPHORETIC PURITY

- Single band on SDS-gel electrophoresis (MW =131,000); several minor bands.
Two major bands on isoelectric focusing (pI 4.0 & 4.1); minor bands at pI 4.2 & 4.3.

2. SPECIFIC ACTIVITY AND LEVEL OF OTHER ACTIVITIES

Specific activity on pullulan (borohydride reduced) at 5 mg/ml is 36.3 units/mg of protein.
at 40°C and pH 5.0.

One unit of enzyme activity is defined as the amount of enzyme required to release one micromole of glucose reducing-sugar-equivalents 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 0.003% (on an activity basis). Activity on Ceralpha Reagent is 0.02% on an activity basis. This has been shown to be due to removal of the *p*-nitrophenyl unit from the oligosaccharide, rather than hydrolysis of the glycosidic bond in the maltosaccharide.

4. PHYSICOCHEMICAL PROPERTIES

pH Optima	5.0
pH Stability	4.5-5.5
Temperature Optima	< 50°C
Temperature Stability	< 50°C

5. STORAGE CONDITIONS

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