

## PULLULANASE from *KLEBSIELLA AEROGENES*

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### SYNONYMS

R-enzyme, limit dextrinase, debranching enzyme

### SOURCES

Produced by the controlled fermentation of *Klebsiella aerogenes*

### Active principles

Pullulanase (alpha-dextrin endo-1,6-alpha-glucosidase, amylopectin 6-glucanohydrolase)

### Systematic names and numbers

alpha-Dextrin 6-glucanohydrolase (EC 3.2.1.41)

### Reactions catalyzed

The enzyme preparations hydrolyze 1,6-alpha-glucosidic linkages in pullulan, and the alpha- and beta-amylase limit dextrans of amylopectin and glycogen, yielding mainly maltotriose and maltose.

### Secondary enzyme activities

alpha-amylase (EC 3.2.1.1)  
Microbial serine proteinase (EC 3.4.21.14)  
Microbial aspartic proteinase (EC 3.4.23.6)

### DESCRIPTION

Tan, fine powders or off-white liquids; soluble in water; practically insoluble in ethanol, chloroform and ether

### FUNCTIONAL USES

Enzyme preparation  
Used in the preparation of and/or use in sugar and honey, cereal and starch and beverages

### GENERAL SPECIFICATIONS

Must conform to the *General Specifications for Enzyme Preparations used in Food Processing* (see Volume Introduction)

### CHARACTERISTICS

#### IDENTIFICATION

Pullulanase activity (Vol. 4) The sample shows pullulanase activity