

Glucoamylase, Enzyme Activity

Catalog	Unit
TBP0019-1KU	1000 U
TBP0019-5KU	5000 U

Preparation and Specification

Appearance: White amorphous powder (salt-free), lyophilized

Activity: Gradel 30U/mg-solid or more

1,4- α -D-Glucan glucohydrolase(EC 3.2.1.3)



Properties

Stability: Stable at -20°C for at least One year

Molecular weight: approx. 70,000

Michaelis constants: $11 \pm 1.1 \times 10^{-4}\text{M}$ (Maltose),

$3.6 \pm 0.51 \times 10^{-4}\text{M}$ (Maltotriose),

$2.5 \pm 0.33 \times 10^{-4}\text{M}$ (Maltotetraose),

$1.6 \pm 0.02 \times 10^{-4}\text{M}$ (Maltopentaose)

Structure: Glycoprotein $[E_{1\text{cm}}^{280\text{nm}} (1\%) = 14.5]$

Optimum pH: 4.5-5.0

Optimum temperature: 60°C

pH Stability: pH 4.0-8.5 (25°C, 20hr)

Thermal stability: below 45°C (pH 5.5, 10min)

Substrate specificity: This enzyme completely hydrolyzes soluble starch, amylopectin, glycogen, α - or β -limit dextrin, amylose, maltooligosaccharides and panose.

Applications

This enzyme is useful for structural investigation of carbohydrates and for enzymatic determination of α -amylase when coupled with the related enzymes in clinical analysis.

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