Tribioscience

a-Glucosidase, Enzyme Activity

Catalog	Unit
TBP0049-1KU	1000 U
TBP0049-5KU	5000 U

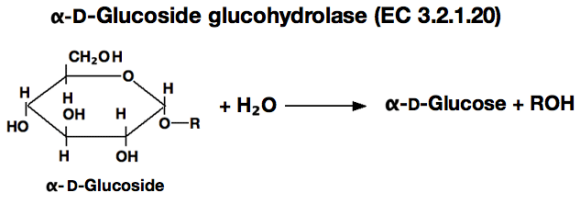
Preparation and Specification

Appearance: White amorphous powder, lyophilized

Activity: GradeII 20U/mg-solid or more

Contaminants: α-amylase ≤1.0×10^{-5}%

Stabilizers: BSA



Properties

Stability: Stable at −20℃ for at least one year

Molecular weight: approx. 65,000 (Gel-filtration and SDS-PAGE)

Isoelectric point: 5.2

Michaelis constant: 6.3×10^{-4}M (p-Nitrophenyl-α-D-glucopyranoside)

Inhibitors: Ag^{+}, Hg^{++}, PCMB, MIA

Optimum pH: 6.0−7.0

Optimum temperature: 60℃

pH Stability: pH 5.0−9.0

Thermal stability: below 60℃ (pH 7.0, 15min)

Substrate*	Relative hydrolysis rate**	Substrate*	Relative hydrolysis rate**
PNPG	100.0	Maltose	271.0
PNPG2	205.0	Maltotriose	203.0
PNPG3	284.0	Maltotetraose	168.0
PNPG5	164.0	Maltopentaose	100.0

* : Substrate concn. 2.2mM
** : Glucose-forming activity, pH 6.8 at 37℃
Effect of various chemicals: (Table 1)

Applications

This enzyme is useful for structural investigations of carbohydrates and for the enzymatic determination of α-amylase when coupled with hexokinase (HXK-311) and G-6-P dehydrogenase (G6D-311, G6D-321) in clinical analysis.

For research use only

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