



## Native Rhizopus sp. Glucoamylase

### Product Information

<b>Cat#</b>	DIA-190
<b>Abbr</b>	Glucoamylase (Rhizopus sp.)
<b>Similar</b>	Glucoamylase
<b>Source</b>	Rhizopus sp.
<b>Description</b>	Glucan 1,4-alpha-glucosidase is an enzyme located on the brush border of the small intestine with system name 4-alpha-D-glucan glucohydrolase. This enzyme catalyses the following chemical reaction: Hydrolysis of terminal (1->4)-linked alpha-D-glucose residues successively from non-reducing ends of the chains with release of beta-D-glucose. Most forms of the enzyme can rapidly hydrolyse 1,6-alpha-D-glycosidic bonds when the next bond in the sequence is 1,4.
<b>Applications</b>	This enzyme is useful for structural investigation of carbohydrates and for enzymatic determination of $\alpha$ -amylase when coupled with the related enzymes in clinical analysis.
<b>Appearance</b>	White amorphous powder (salt-free), lyophilized
<b>Form</b>	Freeze dried powder
<b>Enzyme Commission Number</b>	EC 3.2.1.3
<b>Activity</b>	30U/mg-solid or more
<b>CAS No.</b>	9032-08-0
<b>pH Stability</b>	pH 4.0-8.5 (25°C, 20hr)
<b>Michaelis Constant</b>	$11 \pm 1.1 \times 10^{-4} \text{M}$ (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)
<b>Specificity</b>	This enzyme completely hydrolyzes soluble starch, amylopectin, glycogen, $\alpha$ - or $\beta$ -limit dextrin, amylose, maltooligosaccharides and panose.
<b>Optimum pH</b>	4.5-5.0



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## **Native Rhizopus sp. Glucoamylase**

<b>Optimum temperature</b>	60°C
<b>Thermal stability</b>	below 45°C (pH 5.5, 10min)
<b>Stability</b>	Stable at-20°C for at least 6 months
<b>Synonyms</b>	EC 3.2.1.3; glucoamylase; amyloglucosidase; gamma-amylase; lysosomal alpha-glucosidase; acid maltase; exo-1,4-alpha-glucosidase; glucose amylase; gamma-1,4-glucan glucohydrolase; acid maltase; 1,4-alpha-D-glucan glucohydrolase