

## Native Microorganism $\alpha$ -Glucosidase (MALTASE)

### Product Information

<b>Cat#</b>	DIA-194
<b>Abbr</b>	$\alpha$ -Glucosidase (Microorganism)
<b>Alias</b>	maltase
<b>Similar</b>	$\alpha$ -Glucosidase
<b>Source</b>	Microorganism
<b>Description</b>	Glycoside hydrolases (also called glycosidases or glycosyl hydrolases) assist in the hydrolysis of glycosidic bonds in complex sugars. They are extremely common enzymes with roles in nature including degradation of biomass such as cellulose and hemicellulose, in anti-bacterial defense strategies (e.g., lysozyme), in pathogenesis mechanisms (e.g., viral neuraminidases) and in normal cellular function (e.g., trimming mannosidases involved in N-linked glycoprotein biosynthesis). Together with glycosyltransferases, glycosidases form the major catalytic machinery for the synthesis and breakage of glycosidic bonds.
<b>Applications</b>	This enzyme is useful for structural investigations of carbohydrates and for the enzymatic determination of $\alpha$ -amylase when coupled with hexokinase and G-6-P dehydrogenase in clinical analysis.
<b>Appearance</b>	White amorphous powder, lyophilized
<b>Form</b>	Freeze dried powder
<b>Enzyme Commission Number</b>	EC 3.2.1.20
<b>Activity</b>	20U/mg-solid or more
<b>CAS No.</b>	9001-42-7
<b>Contaminants</b>	$\alpha$ -amylase < $1.0 \times 10^{-5}\%$
<b>Isoelectric point</b>	5.2



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*Diagnostic Enzymes*

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<b>pH Stability</b>	pH 5.0-9.0
<b>Michaelis Constant</b>	$6.3 \times 10^{-4} \text{M}$ (p-Nitrophenyl- $\alpha$ -D-glucopyranoside)
<b>Optimum pH</b>	6.0-7.0
<b>Optimum temperature</b>	60°C
<b>Thermal stability</b>	below 60°C (pH 7.0, 15min)
<b>Stability</b>	Stable at -20°C for at least one year
<b>Stabilizers</b>	Bovine serum albumin (BSA)
<b>Inhibitors</b>	Ag <sup>+</sup> , Hg <sup>++</sup> , PCMB, MIA
<b>Synonyms</b>	Alpha-glucosidase; EC 3.2.1.20; maltase; glucoinvertase; glucosidosucrase; maltase-glucoamylase; alpha-glucopyranosidase; glucosidoinvertase; alpha-D-glucosidase; alpha-glucoside hydrolase; alpha-1,4-glucosidase; alpha-D-glucoside glucohydrolase; glycosidases; glycosyl hydrolases; $\alpha$ -Glucosidase