

Native Microorganism α -Glucosidase (MALTASE)

Product Information

Cat#	DIA-194
Abbr	α -Glucosidase (Microorganism)
Alias	maltase
Similar	α -Glucosidase
Source	Microorganism
Description	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.
Applications	This enzyme is useful for structural investigations of carbohydrates and for the enzymatic determination of α -amylase when coupled with hexokinase and G-6-P dehydrogenase in clinical analysis.
Appearance	White amorphous powder, lyophilized
Form	Freeze dried powder
Enzyme Commission Number	EC 3.2.1.20
Activity	20U/mg-solid or more
CAS No.	9001-42-7
Contaminants	α -amylase < $1.0 \times 10^{-5}\%$
Isoelectric point	5.2

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pH Stability	pH 5.0-9.0
Michaelis Constant	$6.3 \times 10^{-4} \text{M}$ (p-Nitrophenyl- α -D-glucopyranoside)
Optimum pH	6.0-7.0
Optimum temperature	60°C
Thermal stability	below 60°C (pH 7.0, 15min)
Stability	Stable at -20°C for at least one year
Stabilizers	Bovine serum albumin (BSA)
Inhibitors	Ag^+ , Hg^{++} , PCMB, MIA
Synonyms	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; α -Glucosidase