Native Microorganism α-Glucosidase (MALTASE)

Cat. No. DIA-194

Lot. No. (See product label)

Introduction

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.

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

Product Information

Source	Microorganism
Appearance	White amorphous powder, lyophilized
Form	Freeze dried powder
EC Number	EC 3.2.1.20
CAS No.	9001-42-7
Molecular Weight	approx. 65 kDa (Gel-filtration and SDS-PAGE)
Activity	GradeⅡ 20U/mg-solid or more
Contaminants	α-amylase< 1.0×10^{-5}%
Isoelectric point	5.2
pH Stability	pH 5.0-9.0
Optimum pH	6.0-7.0
Thermal stability	below 60°C (pH 7.0, 15min)
Optimum temperature	60°C
Michaelis Constant	6.3×10^{-4}M (p-Nitrophenyl-α-D-glucopyranoside)
Inhibitors	Ag^{+}, Hg^{++}, PCMB, MIA
Stabilizers	Bovine serum albumin (BSA)

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Storage and Shipping Information

Stability	Stable at-20°C for at least one year