Creative Enzymes®

Maltose Phosphorylase from Recombinant E. coli

Cat. No. NATE-1250

Lot. No. (See product label)

Introduction

Description	Maltose phosphorylase (MP) is a dimeric enzyme that catalyzes maltose and inorganic phosphate into β-D-glucose-1-phosphate and glucose.
Synonyms	maltose phosphorylase; maltose:phosphate 1-β-D-glucosyltransferase; EC 2.4.1.8; 9030-19-7; MP

Product Information

Species	Enterococcus
Source	E. coli
Appearance	White lyophilizate
EC Number	EC 2.4.1.8
CAS No.	9030-19-7
Molecular Weight	ca. 220 kDa
Activity	> 10 U/mg lyophilizate
Contaminants	α-amylase < 5.0 x 10^-3% α-glucosidase < 5.0 x 10^-2% NADPH oxidase < 5.0 x 10^-2%
pH Stability	5.5–8.0
Optimum pH	6.5–7.5
Thermal stability	below 55°C
Optimum temperature	45–50°C
Michaelis Constant	1.9 x 10^-3 M (maltose) 3.4 x 10^-3 M (phosphate) 8.3 x 10^-3 M (arsenate)
Structure	2 subunits of 90 kDa (SDS-PAGE)
Inhibitors	Hg2+, Ag+, Zn2+, Cu2+
Stabilizers	Lactose
Unit Definition	One unit (U) is defined as the amount of enzyme which produces 1 μmol of D-glucose per min at 30°C and pH 7.0.

Storage and Shipping Information

Storage	at -20°C
Stability	Stability (liquid form) stable at 37°C for at least one week Stability (powder form) stable at 30°C for at least four weeks