

## Maltose Phosphorylase from E. coli, Recombinant

Cat. No. NATE-1250

Lot. No. (See product label)

### Introduction

<b>Description</b>	Maltose phosphorylase (MP) is a dimeric enzyme that catalyzes maltose and inorganic phosphate into $\beta$ -D-glucose-1-phosphate and glucose.
<b>Synonyms</b>	maltose phosphorylase; maltose:phosphate 1- $\beta$ -D-glucosyltransferase; EC 2.4.1.8; 9030-19-7; MP

### Product Information

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

### Storage and Shipping Information

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