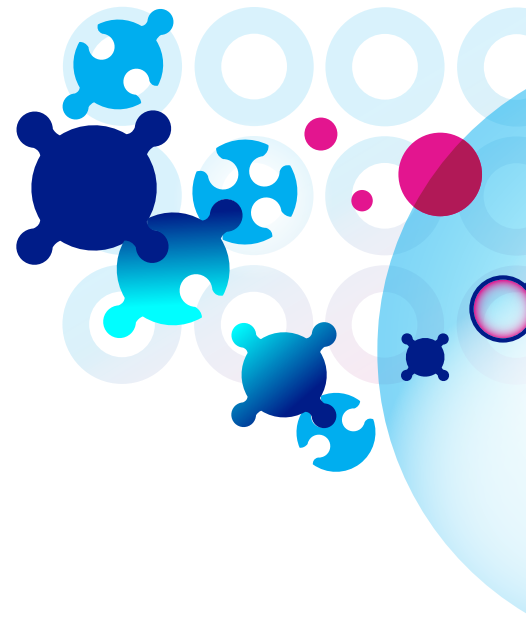




ENZYMES



Maltose phosphorylase

ORIGIN: RECOMBINANT *E. coli*

CAT#: MAL-70-1151

EC#: 2.4.1.8

SPECIFICATIONS

Appearance: white lyophilizate

Activity: ≥ 10 U/mg lyophilizate

ASSAY PRINCIPLE

Maltose + Phosphate $\xrightarrow{\text{maltose phosphorylase}}$ D-Glucose + β -D-Glucose-1-phosphate

The appearance of d-glucose is measured spectrophotometrically at 505 nm.

APPLICATION

The enzyme is useful for the determination of α -amylase and inorganic phosphate in clinical analysis.

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 under the assay conditions.

CHARACTERISTICS

Molecular weight: ca. 220 kDa (gel filtration)

Structure: 2 subunits of 90 kDa (SDS-PAGE)

Michaelis constant: 1.9×10^{-3} M (maltose)
 3.4×10^{-3} M (phosphate)
 8.3×10^{-3} M (arsenate)

pH Optimum: 6.5–7.5

pH Stability: 5.5–8.0

Optimum temperature: 45–50°C

Thermal stability: below 55°C

Inhibitors: Hg^{2+} , Ag^{+} , Zn^{2+} , Cu^{2+}

Stabilizers: lactose, EDTA

Maltose phosphorylase

Figure -1 pH Optimum

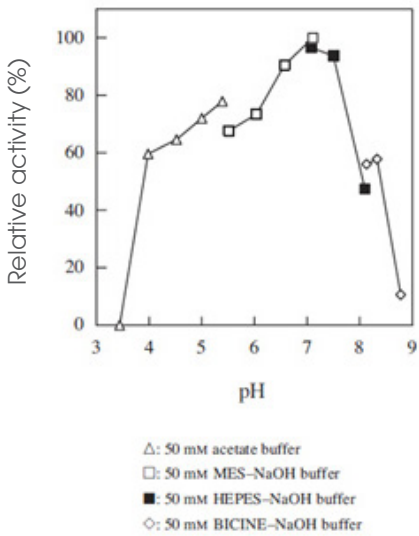


Figure -2 pH Stability

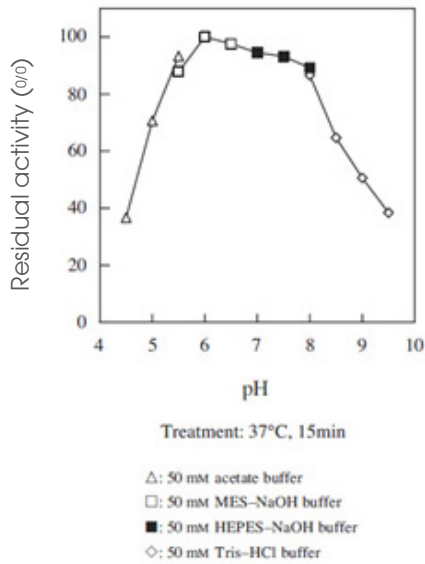


Figure -3 Optimum temperature

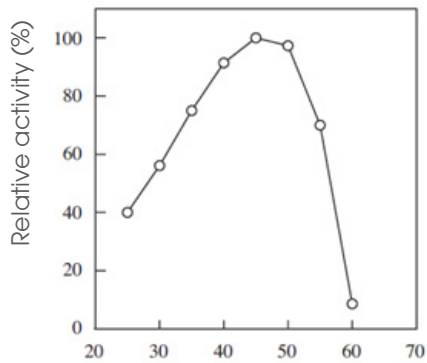
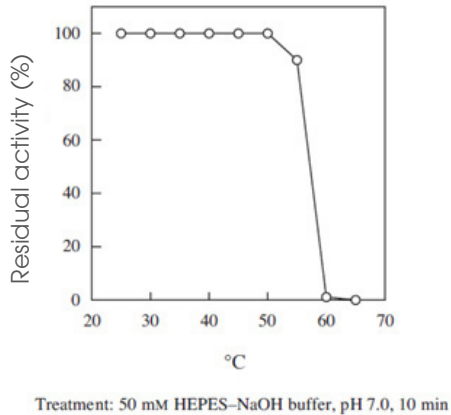


Figure -4 Thermal stability



THE AMERICAS

SEKISUI Diagnostics, LLC
One Wall Street
Burlington, MA 01803
Phone: 800 332 1042
Fax: 800 762 6311

info@sekisui-dx.com
sekisuidiagnostics.com

INTERNATIONAL

SEKISUI Diagnostics (UK) Limited
Liphook Way, Allington
Maidstone, Kent, ME16 0LQ, UK
Phone: +44 1622 607800
Fax: +44 1622 607801

SEKISUI
DIAGNOSTICS

Because every result matters™