

## Sucrose phosphorylase

ORIGIN: *Recombinant E. coli*

CAT#: SUC-70-1271

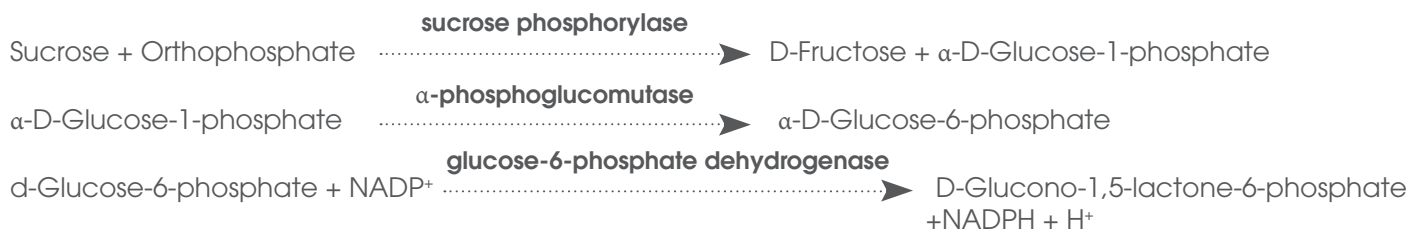
EC#: 2.4.1.7

### SPECIFICATIONS

**Appearance:** white lyophilizate

**Activity:**  $\geq 50$  U/mg lyophilizate

### ASSAY PRINCIPLE



The appearance of NADPH is measured spectrophotometrically at 340 nm.

### APPLICATION

The enzyme is useful for the determination of inorganic phosphate in clinical analysis.

### UNIT DEFINITION

One unit (U) is defined as the amount of enzyme which produces 1  $\mu$ mol of NADPH per min at 25°C and pH 6.8 under the assay conditions.

### CHARACTERISTICS

**Molecular weight:** ca. 56 kDa (gel filtration)

**Structure:** monomer of 56 kDa (SDS-PAGE)

**Isoelectric point:** 4.6

**Michaelis constant:**  $3.9 \times 10^{-2}$  M (sucrose)  
 $6.2 \times 10^{-3}$  M (phosphate)

**pH Optimum:** 7.5

**pH Stability:** 5.0–8.0

**Optimum temperature:** 40°C

**Thermal stability:** below 45°C

**Inhibitors:** glucose, glucono-1,5-lactone

**Stabilizers:** Sucrose

**Specificity:** sucrose (100), maltose (0), starch (0)

# Sucrose phosphorylase

Figure -1 pH Optimum

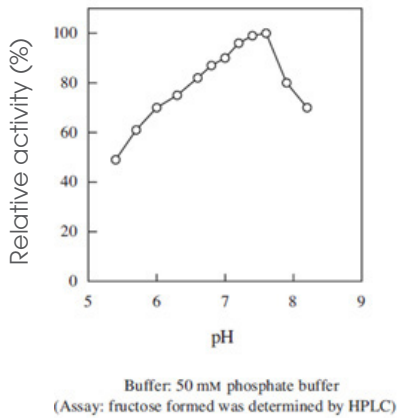


Figure -2 pH Stability

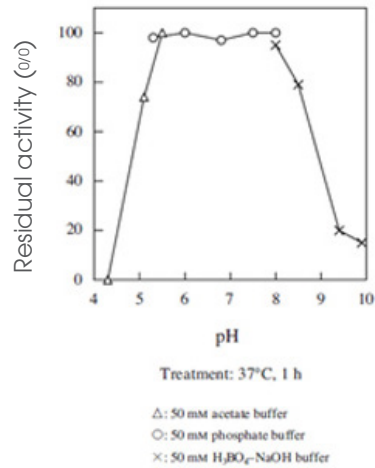


Figure -3 Optimum temperature

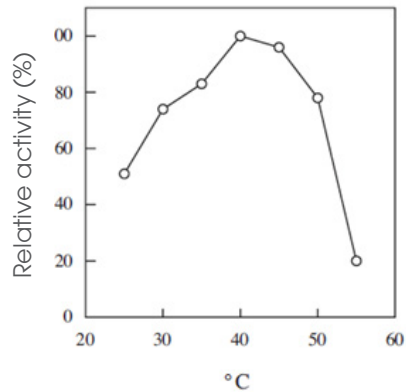
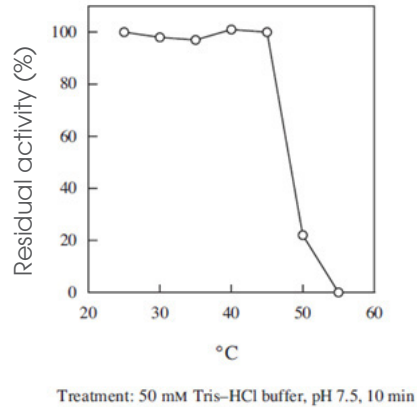


Figure -4 Thermal stability



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