

## Native Bacillus sp. Hexokinase

Cat. No. NATE-1157

Lot. No. (See product label)

### Introduction

#### Description

Native Bacillus sp. Hexokinase for research on glucose phosphorylation and enzymatic mechanisms. Ideal for microbiology and biochemistry studies. Creative Enzymes provides high-purity, reliable products.

#### Applications

This enzyme is useful for enzymatic determination of glucose or creatinine kinase activity when coupled with glucose-6-phosphate dehydrogenase.

#### Synonyms

hexokinase (phosphorylating); ATP-dependent hexokinase; glucose ATP phosphotransferase; hexokinase; ATP:D-hexose 6-phosphotransferase; EC 2.7.1.1

### Product Information

#### Source

Bacillus sp.

#### Appearance

White amorphous powder, lyophilized

#### Form

Freeze dried powder

#### EC Number

EC 2.7.1.1

#### CAS No.

9001-51-8

#### Molecular Weight

68 kDa (gel filtration)

#### Activity

More than 250 U/mg solid

#### Contaminants

NADH oxidase < 0.001%; ATPase < 0.002%; Myokinase < 0.002%; Creatine phosphate < 0.002%; 6-phosphogluconate dehydrogenase < 0.002%; Glucose dehydrogenase < 0.002%

#### Isoelectric point

5.64

#### pH Stability

7.0–8.5

#### Optimum pH

7.5–8.0

#### Thermal stability

Stable at 55°C and below

#### Optimum temperature

50°C

#### Michaelis Constant

Glucose  $8.2 \times 10^{-4}$ M ATP  $8.7 \times 10^{-5}$ M MgCl<sub>2</sub>  $1.6 \times 10^{-3}$ M

#### Stabilizers

ATP, albumin, KCl, NaCl

#### Unit Definition

One unit is defined as the amount of enzyme which generates 1 μmole of NADPH per minute at 37°C under the conditions specified in the assay procedure.

### Storage and Shipping Information

#### Storage

Storage at -20°C in the presence of a desiccant is recommended.