

## Glucokinase from Human, recombinant

Cat. No. NATE-1686

Lot. No. (See product label)

### Introduction

**Description** Glucose is phosphorylated to glucose-6-phosphate by glucokinases. This gene is alternatively spliced to generate three different forms of the enzyme; one found in the pancreas and two found in the liver. The main function of this gene is to regulate carbohydrate metabolism. Recombinant human pancreatic Glucokinase has a C-terminal FLAG tag and has 470 amino acid residues. It can be useful for studies including enzyme kinetics, activator screening and kinase selectivity.

**Synonyms** EC 2.7.1.2; glucokinase; glucokinase (phosphorylating); 9001-36-9; GCK; FGQTL3; GK; GLK; HHF3; HK4; HKIV; HXKP; LGLK; MODY2; Hexokinase type IV; HK IV; Hexokinase-4; Hexokinase-D

### Product Information

**Species** Human pancreatic

**Source** E. coli

**Form** Liquid

**Formulation** 0.5 mg/ml solution in 25 mM Na<sub>2</sub>HPO<sub>4</sub> and 500 mM NaCl (pH 7.0) with 50% glycerol.

**EC Number** EC 2.7.1.2

**CAS No.** 9001-36-9

**Molecular Weight** 53.1 kDa

**Purity** > 80% by SDS-PAGE

**Activity** 303 pmol/min/μg

**Concentration** 1 mg/ml

**Unit Definition** One unit is defined as the amount of enzyme that will convert 1 pmol of NADP to NADPH at 30°C. Assay conditions: 25 mM HEPES, pH 7.5, 2 mM MgCl<sub>2</sub>, 1.0 mM DTT, 0.5 mM NADP, 2.0 mM ATP, 25 mM glucose, 100 μg/ml BSA, 20 units/ml glucose 6-phosphate dehydrogenase, and 10 nM human pancreatic glucokinase at 30°C for 30 min.

### Storage and Shipping Information

**Storage** Store at -80°C. Avoid repeated freezing and thawing cycles.