

Glucokinase from Human, recombinant

Cat. No. NATE-1687

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; FGQL3; GK; GLK; HHF3; HK4; HKIV; HXKP; LGLK; MODY2; Hexokinase type IV; HK IV; Hexokinase-4; Hexokinase-D

Product Information

Species Human liver

Source E. coli

Form Liquid

Formulation 0.5 mg/ml solution in 25 mM Na₂HPO₄ and 500 mM NaCl (pH 7.0) with 50% glycerol.

EC Number EC 2.7.1.2

CAS No. 9001-36-9

Molecular Weight 53.4 kDa

Purity > 77% by SDS-PAGE

Activity 662 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 MgCl₂, 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 liver glucokinase at 30°C for 30 min.

Storage and Shipping Information

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