Creative Enzymes®

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; FGQTL3; 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.