

Pancreatic Glucokinase, human recombinant

CATALOG #:	7777-10
SOURCE:	<i>E. coli</i>
PURITY:	≥80% by SDS-PAGE
MOL. WEIGHT:	53.1 kDa
FORMULATION:	Liquid in 50 mM potassium phosphate pH 7.4, 50 mM sodium chloride, 0.5 mM DTT, 0.5 mM EDTA, and 2.5% glycerol.
CONCENTRATION:	39.3 mg/ml

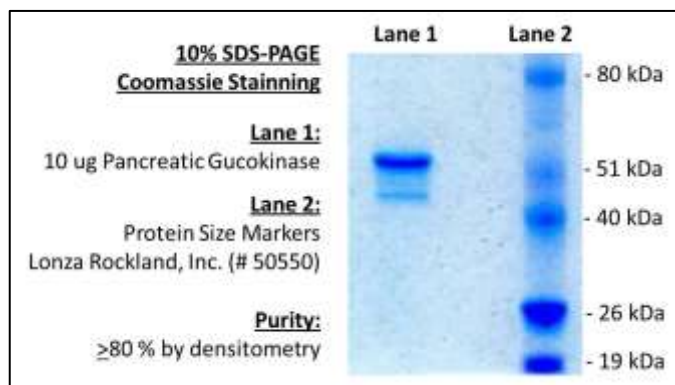
STORAGE CONDITIONS:

The protein is best stored in working aliquots at -80 °C. Avoid freeze/thaw cycles.

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 (Accession# NP_000153) 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.

SDS-PAGE:



SPECIFIC ACTIVITY:

303 pmol/min/μg. 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 pancreatic glucokinase at 30°C for 30 min.

ACTIVATION: (±) Ro 28-0450 (100 μM) activated human pancreatic glucokinase 86% versus control measured at glucose [S]_{0.5}.

RELATED PRODUCTS:

- **Cat# 3153-100** GCK (Glucokinase) Antibody
- **Cat# 3154-100** GCK (Glucokinase) Antibody
- **Cat# 7776-10** Recombinant Human Liver Glucokinase
- **Cat# K616-100** Glucose and Sucrose Assay Kit
- **Cat# K606-100** Glucose Assay Kit
- **Cat# K686-100** Glucose Assay Kit II
- **Cat# K786-100** Glucose Dehydrogenase Activity Assay Kit
- **Cat# K657-100** Glucose-6-Phosphate Assay Kit
- **Cat# K757-100** Glucose-6-Phosphate Dehydrogenase Activity Assay Kit
- **Cat# K618-100** Maltose and Glucose Assay Kit
- **Cat# K687-100** PicoProbe™ Glucose-6-Phosphate Assay Kit

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