

# Pancreatic Glucokinase, human recombinant

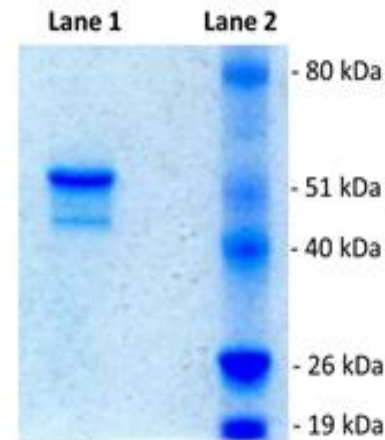
<b>ALTERNATE NAMES:</b>	Hexokinase type IV, Hexokinase-4, Hexokinase-D
<b>CATALOG #:</b>	7777-10 10 µg
<b>SOURCE:</b>	<i>E. coli</i>
<b>PURITY:</b>	≥80% by SDS-PAGE
<b>MOL. WEIGHT:</b>	53.1 kDa
<b>FORM:</b>	Liquid
<b>FORMULATION:</b>	10 µl in 50 mM potassium phosphate pH 7.4, 50 mM sodium chloride, 0.5 mM DTT, 0.5 mM EDTA, and 2.5% glycerol.
<b>CONCENTRATION:</b>	1 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.

**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 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.

**ACTIVATION:** (±) Ro 28-0450 (100 µM) activated human pancreatic glucokinase 86% versus control measured at glucose [S]<sub>0.5</sub>.



**Pancreatic Glucokinase, human recombinant.**

10% SDS-PAGE gel  
Lane 1. 10 µg Pancreatic glucokinase.  
Lane 2. Protein MW marker.

## RELATED PRODUCTS:

- Glucokinase, human liver, recombinant (**Cat. No. 7776-10**)
- GCK (Glucokinase) Antibody (**Cat. No. 3153-100**)
- GCK (Glucokinase) Antibody (**Cat. No. 3154-100**)
- Glucose and Sucrose Colorimetric/Fluorometric Assay Kit (**Cat. No. K616-100**)
- Glucose Colorimetric/Fluorometric Assay Kit (**Cat. No. K606-100**)
- Glucose Colorimetric Assay Kit II (**Cat. No. K686-100**)
- Glucose Dehydrogenase Activity Colorimetric Assay Kit (**Cat. No. K786-100**)
- Glucose-6-Phosphate Colorimetric Assay Kit (**Cat. No. K657-100**)
- Glucose-6-Phosphate Dehydrogenase Activity Colorimetric Assay Kit (**Cat. No. K757-100**)
- Maltose and Glucose Colorimetric/Fluorometric Assay Kit (**Cat. No. K618-100**)
- PicoProbe™ Glucose-6-Phosphate Fluorometric Assay Kit (**Cat. No. K687-100**)

**FOR RESEARCH USE ONLY! Not to be used on humans.**