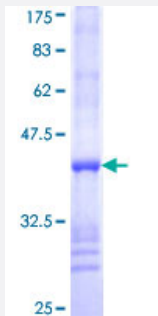


GCK (Human) Recombinant Protein (Q01)

Catalog # H00002645-Q01

Size 25 ug, 10 ug

Applications



Specification

Product Description	Human GCK partial ORF (AAH01890.1, 356 a.a. - 465 a.a.) recombinant protein with GST-tag at N-terminal.
Sequence	GLRPSTTDCDMRRACESVSTRAAHMCSAGLAGVINRMRESRSEDVMRITVGVDGSVYKLHPSFK ERFHASVRRLTPSCEITFIEEEGSGRGAALVSAVACKKACMLGQ
Host	Wheat Germ (in vitro)
Theoretical MW (kDa)	37.73
Interspecies Antigen Sequence	Rat (97)
Preparation Method	in vitro wheat germ expression system
Purification	Glutathione Sepharose 4 Fast Flow
Quality Control Testing	12.5% SDS-PAGE Stained with Coomassie Blue.
Storage Buffer	50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.
Storage Instruction	Store at -80°C. Aliquot to avoid repeated freezing and thawing.
Note	Best use within three months from the date of receipt of this protein.

Applications

- Enzyme-linked Immunoabsorbent Assay
- Western Blot (Recombinant protein)
- Antibody Production
- Protein Array

Gene Info — GCK

Entrez GeneID [2645](#)

GeneBank Accession# [BC001890.1](#)

Protein Accession# [AAH01890.1](#)

Gene Name GCK

Gene Alias GK, GLK, HHF3, HK4, HKIV, HXKP, MODY2

Gene Description glucokinase (hexokinase 4)

Omim ID [125851](#) [125853](#) [138079](#) [602485](#) [606176](#)

Gene Ontology [Hyperlink](#)

Gene Summary Hexokinases phosphorylate glucose to produce glucose-6-phosphate, the first step in most glucose metabolism pathways. Alternative splicing of this gene results in three tissue-specific forms of glucokinase, one found in pancreatic islet beta cells and two found in liver. The protein localizes to the outer membrane of mitochondria. In contrast to other forms of hexokinase, this enzyme is not inhibited by its product glucose-6-phosphate but remains active while glucose is abundant. Mutations in this gene have been associated with non-insulin dependent diabetes mellitus (NIDDM), maturity onset diabetes of the young, type 2 (MODY2) and persistent hyperinsulinemic hypoglycemia of infancy (PHHI). [provided by RefSeq]

Other Designations ATP:D-hexose 6-phosphotransferase|OTTHUMP00000024521|OTTHUMP00000159308|glucokinase|hexokinase D, pancreatic isozyme

Pathway

- [Amino sugar and nucleotide sugar metabolism](#)

- [Galactose metabolism](#)
- [Glycolysis / Gluconeogenesis](#)
- [Insulin signaling pathway](#)
- [Maturity onset diabetes of the young](#)
- [Metabolic pathways](#)
- [Starch and sucrose metabolism](#)
- [Streptomycin biosynthesis](#)
- [Type II diabetes mellitus](#)

Disease

- [Alzheimer disease](#)
- [Atherosclerosis](#)
- [Birth Weight](#)
- [Calcinosis](#)
- [Cardiovascular Diseases](#)
- [Coronary Artery Disease](#)
- [Coronary Disease](#)
- [Diabetes](#)
- [Diabetes Complications](#)
- [Diabetes Mellitus](#)
- [Diabetic Nephropathies](#)
- [Disease Progression](#)
- [Disease Susceptibility](#)
- [Edema](#)
- [Fetal Growth Retardation](#)
- [Genetic Predisposition to Disease](#)

- [Glucose Intolerance](#)
- [HIV Infections](#)
- [Hyperglycemia](#)
- [Hyperinsulinism](#)
- [Hypertension](#)
- [Hypoglycemia](#)
- [Insulin Resistance](#)
- [Kidney Failure](#)
- [Metabolic Syndrome X](#)
- [Neoplasms](#)
- [Obesity](#)
- [Osteoporosis](#)
- [Overweight](#)
- [Persistent Hyperinsulinemia Hypoglycemia of Infancy](#)
- [Postoperative Complications](#)
- [Pregnancy Complications](#)
- [Pregnancy in Diabetics](#)
- [Sudden Infant Death](#)