

Recombinant Full Length Human GCK Protein, GST-tagged

Cat. No. GCK-5172HF Lot. No. (See product label)

SPECIFICATION

Product Overview	Human GCK full-length ORF (AAH01890, 1 a.a. - 465 a.a.) recombinant protein with GST-tag at N-terminal.
Species	Human
Source	In Vitro Cell Free System
ProteinLength	465 amino acids
Description	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]
Molecular Mass	76.78 kDa
AA Sequence	MLDDRARMEAAKKEKVEQILAEFQLQEEDLKKVMRRMQKEMDRGLRLETHEEASV KMLPTYVRSTPEGSEVGDFLSLDLGGTNFRVMLVKVGEEGEQSWVKTKHQMYSI PEDAMTGTAEMLFDYISECISDFLDKHQMKHKKLPLGFTFSFPVRHEDIDKGILLNWT KGFKASGAEGNNVVGLLRDAIKRRGDFEMDVVAMVNDTVATMISCYYEDHQCEVG

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MIVGTGCNACYMEEMQNVELVEGDEGRMCVNTEWGAFGDSGELDEFLLLEYDRLV
 DESSANPGQQLYEKLIIGGKYMVELVRLVLLRLVDENLLFHGEASEQLRTRGAFETRF
 VSQVESDTGDRKQIYNILSTLGLRPSTTDCDIVRRACESVSTRAAHMCSAGLAGVIN
 RMRESRSEDVMRITVGVDGGSVYKHLHPSFKERFHASVRRLTPSCEITFIESEEGSGRG
 AALVSAVACKKACMLGQ

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

Notes Best use within three months from the date of receipt of this protein.

Storage Store at -80 centigrade. Aliquot to avoid repeated freezing and thawing.

Storage Buffer 50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.

GENE INFORMATION

Gene Name [GCK glucokinase \(hexokinase 4\) \[Homo sapiens \]](#)

Official Symbol [GCK](#)

Synonyms GCK; glucokinase (hexokinase 4); maturity onset diabetes of the young 2, MODY2; glucokinase; HK4; HK IV; hexokinase-4; hexokinase-D; hexokinase type IV; hexokinase D, pancreatic isozyme; ATP:D-hexose 6-phosphotransferase; GK; GLK; HHF3; HKIV; HXKP; LGLK; MODY2; FGQTL3;

Gene ID [2645](#)

mRNA Refseq [NM_000162](#)

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Protein Refseq [NP_000153](#)

MIM [138079](#)

UniProt ID [P35557](#)

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