

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	MLDDRARMEEAAKKEKVEQILAEFQLQEEDLKKVMRRMQKEMDRGLRLETHEEASV KMLPTYVRSTPEGSEVGDFLSLDLGGTNFRVMLVKVGEEGEGQWSVKTKHQMYSI PEDAMTGTAEMLFDYISECISDFLDKHQMKHKKLPLGFTFSFPVRHEDIDKGILLNWT KGFKASGAEGNNVVGLLRDAIKRRGDFEMDVVAMVNDTVATMISCYYEDHQCEVG

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

MIVGTGCNACYMEEMQNVELVEGDEGRMCVNTEWGAFGDSGELDEFLLLEYDRLV
 DESSANPGQQLYEKLIGGKYMGEVLRLVLLRLVDENLLFHGEASEQLRTRGAFETRF
 VSQVESDTGDRKQIYNILSTLGLRPSTTDCDIVRRACESVSTRAAHMCSAGLAGVIN
 RMRESRSEDVMRITVGVDGSVYKLHPSFKERFHASVRRLTPSCEITFIESEEGSGRG
 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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