Recombinant Full Length Human GCK Protein, C-Flag-tagged

Cat. No. GCK-1984HFL **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Full Length Human GCK Protein, fused to Flag-tag at C-terminus, was expressed in Mammalian cells.
Species	Human
Source	Mammalian Cells
Description	This gene encodes a member of the hexokinase family of proteins. Hexokinases phosphorylate glucose to produce glucose-6-phosphate, the first step in most glucose metabolism pathways. 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. The use of multiple promoters and alternative splicing of this gene result in distinct protein isoforms that exhibit tissue-specific expression in the pancreas and liver. In the pancreas, this enzyme plays a role in glucose-stimulated insulin secretion, while in the liver, this enzyme is important in glucose uptake and conversion to glycogen. Mutations in this gene that alter enzyme activity have been associated with multiple types of diabetes and hyperinsulinemic hypoglycemia.
Form	25 mM Tris HCl, pH 7.3, 100 mM glycine, 10% glycerol.
Molecular Mass	52 kDa
AA Sequence	MLDDRARMEAAKKEKVEQILAEFQLQEEDLKKVMRRMQKEMDRGLRLETHEEASV KMLPTYVRSTPEGSE VGDFLSLDLGGTNFRVMLVKVGEGEEGQWSVKTKHQMYSI PEDAMTGTAEMLFDYISECISDFLDKHQMK HKKLPLGFTFSFPVRHEDIDKGILLNW

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	TKGFKASGAEGNNVVGLLRDAIKRRGDFEMDVVAMVNDTVATM ISCYYEDHQCEV GMIVGTGCNACYMEEMQNVELVEGDEGRMCVNTEWGAFGDSGELDEFLLEYDRL VDES SANPGQQLYEKLIGGKYMGELVRLVLLRLVDENLLFHGEASEQLRTRGAFET RFVSQVESDTGDRKQIYN ILSTLGLRPSTTDCDIVRRACESVSTRAAHMCSAGLAGV INRMRESRSEDVMRITVGVDGSVYKLHPSFK ERFHASVRRLTPSCEITFIESEEGSG RGAALVSAVACKKACMLGQ TRTRPLEQKLISEEDLAANDILDYKDDDDKV
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining.
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade.
Concentration	>50 ug/mL as determined by microplate BCA method.
Preparation	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
Protein Families	Druggable Genome
Protein Pathways	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, Type II diabetes mellitus
Full Length	Full L.

GENE INFORMATION

Gene Name	GCK glucokinase [Homo sapiens (human)]

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Official Symbol	GCK
Synonyms	GK; GLK; HK4; HHF3; HKIV; HXKP; LGLK; MODY2; PNDM1; FGQTL3
Gene ID	2645
mRNA Refseq	NM_000162.5
Protein Refseq	NP_000153.1
MIM	138079
UniProt ID	P35557

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