Recombinant Human GCK Protein, His-tagged

Cat. No. GCK-2198H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human GCK Protein (Asp3-Val226) with a N-His tag was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	Asp3-Val226
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	Freeze-dried powder
Molecular Mass	Predicted Molecular Mass: 29.3 kDa Accurate Molecular Mass: 29 kDa

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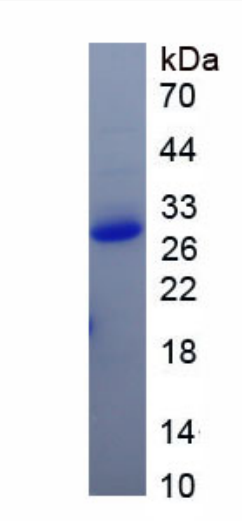
Endotoxin	<1.0 EU per 1μg (determined by the LAL method).
Purity	> 90%
Applications	Positive Control; Immunogen; SDS-PAGE; WB.
Stability	The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 centigrade for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8 centigrade for one month. Aliquot and store at -80 centigrade for 12 months.
Storage Buffer	100mM NaHCO3, 500mM NaCl, pH8.3, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
Reconstitution	Reconstitute in ddH2O to a concentration of 0.1-1.0 mg/mL. Do not vortex.

GENE INFORMATION

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

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mRNA Refseq	NM_000162
Protein Refseq	NP_000153
MIM	138079
UniProt ID	P35557



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