

## 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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<b>Endotoxin</b>	<1.0 EU per 1g (determined by the LAL method).
<b>Purity</b>	> 90%
<b>Applications</b>	Positive Control; Immunogen; SDS-PAGE; WB.
<b>Stability</b>	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.
<b>Storage</b>	Avoid repeated freeze/thaw cycles. Store at 2-8 centigrade for one month. Aliquot and store at -80 centigrade for 12 months.
<b>Storage Buffer</b>	100mM NaHCO <sub>3</sub> , 500mM NaCl, pH8.3, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
<b>Reconstitution</b>	Reconstitute in ddH <sub>2</sub> O to a concentration of 0.1-1.0 mg/mL. Do not vortex.

## GENE INFORMATION

<b>Gene Name</b>	GCK glucokinase (hexokinase 4) [ Homo sapiens (human) ]
<b>Official Symbol</b>	GCK
<b>Synonyms</b>	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;
<b>Gene ID</b>	2645

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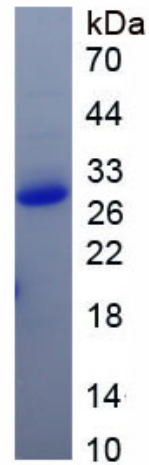
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mRNA Refseq [NM\\_000162](#)

Protein Refseq [NP\\_000153](#)

MIM [138079](#)

UniProt ID [P35557](#)



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