



## Rabbit Anti-GLK antibody

SL1796R

<b>Product Name:</b>	GLK
<b>Chinese Name:</b>	葡萄糖激酶抗体
<b>Alias:</b>	Glucokinase; ATP D hexose 6 phosphotransferase; GCK; GK; Glucokinase isoform 1; Hexokinase 4; Hexokinase D; Hexokinase D pancreatic isozyme; Hexokinase type IV; Hexokinase4; HexokinaseD; HHF 3; HHF3; HK 4; HK IV; HK4; HXKP; Maturity onset diabetes of the young 2; MODY 2; MODY2; GLUKA; RNGK2; HXK4 HUMAN.
<b>Organism Species:</b>	Rabbit
<b>Clonality:</b>	Polyclonal
<b>React Species:</b>	Human,Mouse,Rat,Chicken,Dog,Pig,Horse,Rabbit,
<b>Applications:</b>	WB=1:500-2000ELISA=1:500-1000Flow-Cyt=3ug/Test not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
<b>Molecular weight:</b>	51kDa
<b>Cellular localization:</b>	The nucleuscytoplasmic
<b>Form:</b>	Lyophilized or Liquid
<b>Concentration:</b>	1mg/ml
<b>immunogen:</b>	KLH conjugated synthetic peptide derived from human GCK:101-200/465
<b>Lsotype:</b>	IgG
<b>Purification:</b>	affinity purified by Protein A
<b>Storage Buffer:</b>	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
<b>Storage:</b>	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
<b>PubMed:</b>	<a href="#">PubMed</a>
<b>Product Detail:</b>	Hexokinases phosphorylate glucose to produce glucose 6 phosphate, thus committing glucose to the glycolytic pathway. 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, also called maturity onset diabetes of the young, type 2; mutations have also been associated with persistent hyperinsulinemic hypoglycemia of infancy (PHHI).

**Function:**

Catalyzes the initial step in utilization of glucose by the beta-cell and liver at physiological glucose concentration. Glucokinase has a high  $K_m$  for glucose, and so it is effective only when glucose is abundant. The role of GCK is to provide G6P for the synthesis of glycogen. Pancreatic glucokinase plays an important role in modulating insulin secretion. Hepatic glucokinase helps to facilitate the uptake and conversion of glucose by acting as an insulin-sensitive determinant of hepatic glucose usage.

**Subunit:**

Monomer.

**Tissue Specificity:**

Isoform 1 is expressed in pancreas. Isoform 2 and isoform 3 is expressed in liver.

**DISEASE:**

Defects in GCK are the cause of maturity-onset diabetes of the young type 2 (MODY2) [MIM:125851]; also shortened MODY-2. MODY is a form of diabetes that is characterized by an autosomal dominant mode of inheritance, onset in childhood or early adulthood (usually before 25 years of age), a primary defect in insulin secretion and frequent insulin-independence at the beginning of the disease. Defects in GCK are the cause of familial hyperinsulinemic hypoglycemia type 3 (HHF3) [MIM:602485]; also known as persistent hyperinsulinemic hypoglycemia of infancy (PHHI) or congenital hyperinsulinism. HHF is the most common cause of persistent hypoglycemia in infancy. Unless early and aggressive intervention is undertaken, brain damage from recurrent episodes of hypoglycemia may occur.

**Similarity:**

Belongs to the hexokinase family.

**SWISS:**

P35557

**Gene ID:**

2645

**Database links:**

[Entrez Gene: 2645](#)Human

[Entrez Gene: 103988](#)Mouse

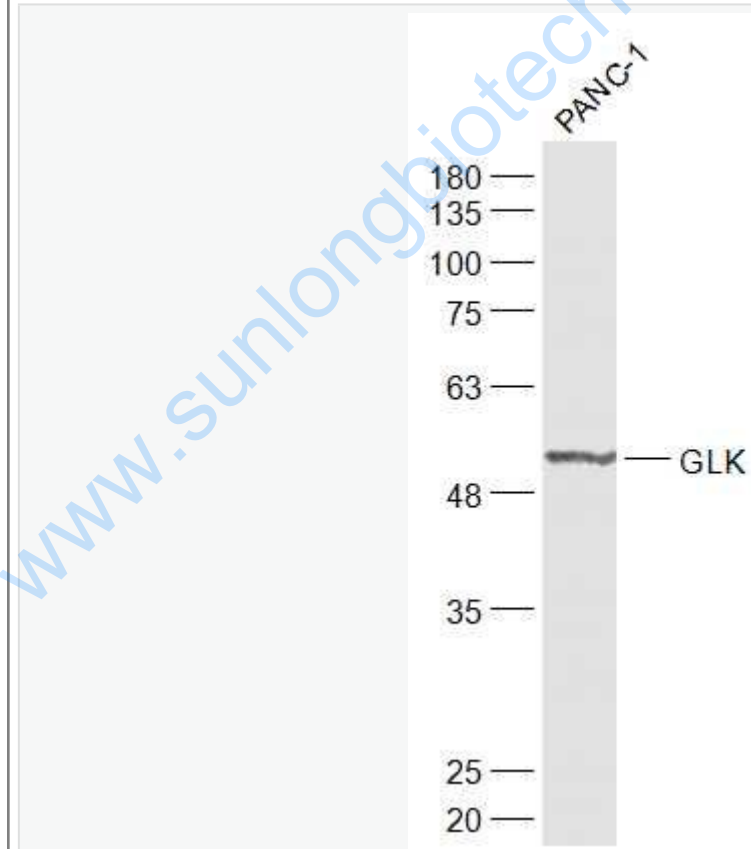
[Entrez Gene: 24385](#)Rat

[Omid: 138079](#)Human  
[SwissProt: P35557](#)Human  
[SwissProt: P52792](#)Mouse  
[SwissProt: P17712](#)Rat  
[Unigene: 1270](#)Human  
[Unigene: 220358](#)Mouse  
[Unigene: 10447](#)Rat

**Important Note:**

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Picture:



Sample:

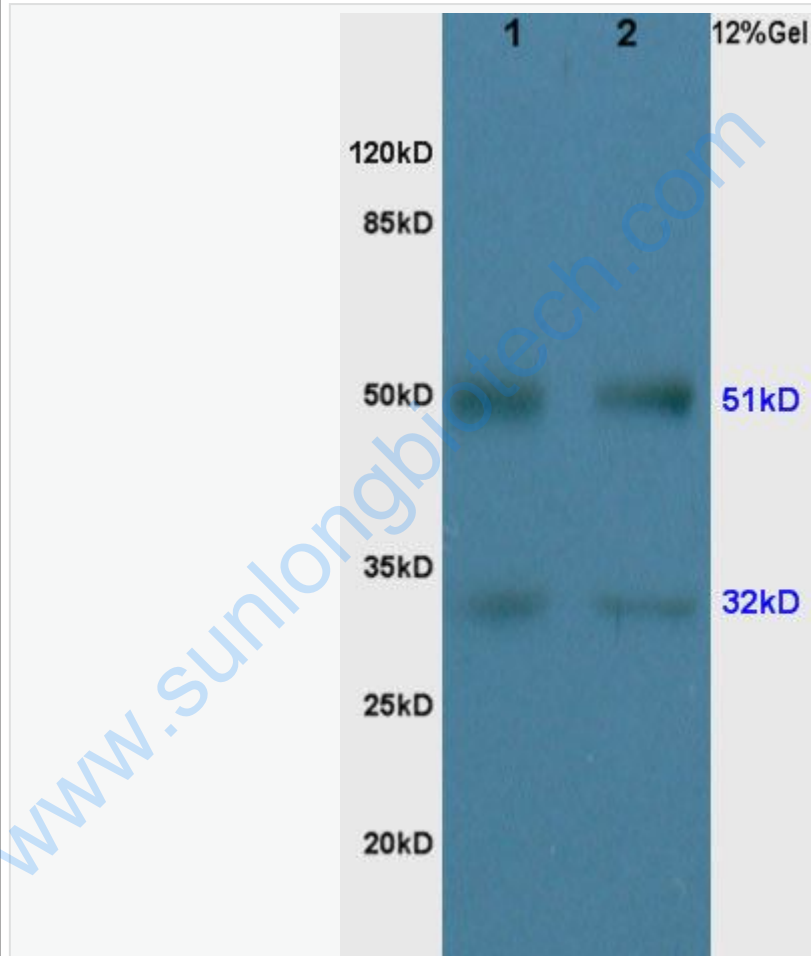
Panc-1(Human) Cell Lysate at 30 ug

Primary: Anti-GLK (SL1796R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 51 kD

Observed band size: 51 kD



Protein: rat liver lysates, 30ug;

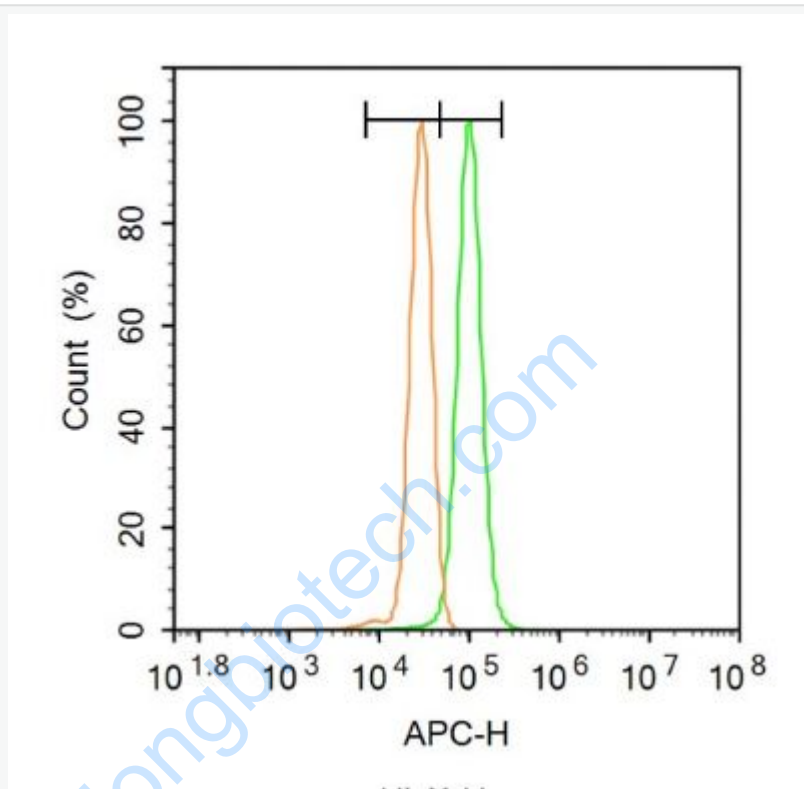
Primary: Anti-GLK(SL1796R) at 1:200;

Secondary: HRP conjugated Goat Anti-Rabbit IgG(SL1796R) at 1: 3000;

ECL excited the fluorescence;

Predicted band size : 51kD

Observed band size : 51kD



Blank control: A431.

Primary Antibody (green line): Rabbit Anti-GLK antibody (SL1796R)

Dilution: 1 $\mu$ g /10<sup>6</sup> cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody: Goat anti-rabbit IgG-AF647

Dilution: 1 $\mu$ g /test.

Protocol

The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 20% PBST for 20 min at room temperature. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at

-20°C .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.

[www.sunlongbiotech.com](http://www.sunlongbiotech.com)