

# Human Glucokinase ELISA Kit (GCK) ab125967

画像数 1

### 製品の概要

**製品名** Human Glucokinase ELISA Kit (GCK)

**検出方法** Colorimetric

**再現性** Intra-Assay (同時再現性)

サンプル	N	平均値	SD	CV%
Overall				5.5%

Inter-Assay (日差再現性)

サンプル	N	平均値	SD	CV%
Overall				9.8%

**サンプルの種類** Cell culture supernatant, Serum, Plasma, Tissue

**アッセイタイプ** Sandwich (quantitative)

**検出感度** 0.29 ng/ml

**検出範囲** 0.78 ng/ml - 12.5 ng/ml

**添加回収試験** 96 %

**全工程の試験時間** 4h 00m

**ステップ** Multiple steps standard assay

**種交差性** 交差種: Human

**製品の概要** Abcam's Glucokinase (GCK) Human *in vitro* ELISA (Enzyme-Linked Immunosorbent Assay) kit is designed for the quantitative measurement of Human GCK in plasma, serum, and cell culture supernatants.

A Glucokinase specific antibody has been precoated onto 96-well plates and blocked. Standards or test samples are added to the wells and subsequently a Glucokinase specific biotinylated detection antibody is added and then followed by washing with wash buffer. Streptavidin-Peroxidase Conjugate is added and unbound conjugates are washed away with wash buffer. TMB is then used to visualize Streptavidin-Peroxidase enzymatic reaction. TMB is catalyzed by Streptavidin-Peroxidase to produce a blue color product that changes into yellow after adding acidic stop solution. The density of yellow coloration is directly proportional to the amount of Glucokinase captured in plate.

The entire kit may be stored at -20°C for long term storage before reconstitution - Avoid repeated freeze-thaw cycles.

試験プラットフォーム

Microplate

## 製品の特性

### 保存方法

Store at -20°C. Please refer to protocols.

内容	1 x 96 tests
100X Streptavidin-Peroxidase Conjugate	1 x 80µl
10X Diluent N Concentrate	1 x 30ml
1X Standard Diluent	1 x 2ml
20X Wash Buffer Concentrate	2 x 30ml
70X Biotinylated Human Glucokinase Antibody	1 x 90µl
Chromogen Substrate	1 x 7ml
Glucokinase Microplate (12 x 8 well strips)	1 unit
Glucokinase Standard	1 vial
Sealing Tapes	3 units
Stop Solution	1 x 11ml

### 機能

Catalyzes the initial step in utilization of glucose by the beta-cell and liver at physiological glucose concentration. Glucokinase has a high Km 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.

### 組織特異性

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

### 関連疾患

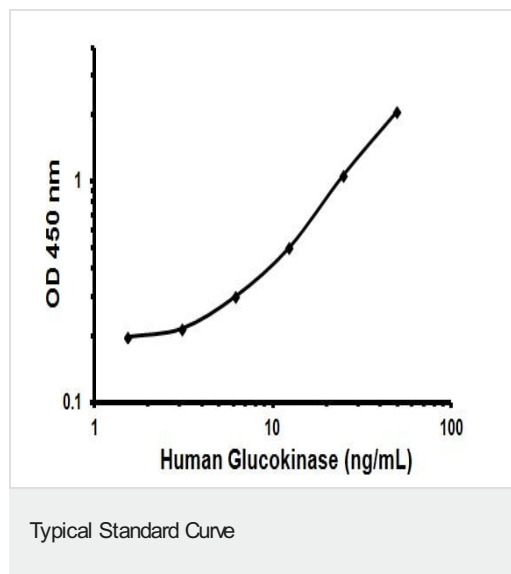
Defects in GCK are the cause of maturity-onset diabetes of the young type 2 (MODY2) [MIM:125851]; also shortened MODY-2. MODY is a form of diabetes that is characterized by an autosomal dominant mode of inheritance, onset in childhood or early adulthood (usually before 25 years of age), a primary defect 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.

### 配列類似性

Belongs to the hexokinase family.

## 画像



Representative Standard Curve using ab125967

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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