

## **Goat Anti-GCKR Antibody**

Peptide-affinity purified goat antibody Catalog # AF1472a

## **Specification**

# **Goat Anti-GCKR Antibody - Product Information**

Application WB
Primary Accession Q14397

Other Accession NP\_001477, 2646, 231103 (mouse), 25658 (rat)

Reactivity
Predicted
Human
Host
Clonality
Concentration
Isotype
Calculated MW

Mouse, Rat
Human
Goat
Conat
Conat
Consentration
0.5mg/ml
IgG
68685

Goat Anti-GCKR Antibody - Additional Information

# Gene ID 2646

## **Other Names**

Glucokinase regulatory protein, GKRP, Glucokinase regulator, GCKR

#### **Format**

0.5 mg lgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

#### Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

## **Precautions**

Goat Anti-GCKR Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## **Goat Anti-GCKR Antibody - Protein Information**

Name GCKR {ECO:0000303|PubMed:8589523, ECO:0000312|HGNC:HGNC:4196}

#### **Function**

Regulates glucokinase (GCK) by forming an inactive complex with this enzyme (PubMed:<a href="http://www.uniprot.org/citations/23621087" target="\_blank">23621087</a>, PubMed:<a href="http://www.uniprot.org/citations/23733961" target="\_blank">23733961</a>). Acts by promoting GCK recruitment to the nucleus, possibly to provide a reserve of GCK that can be quickly released in the cytoplasm after a meal (PubMed:<a href="http://www.uniprot.org/citations/10456334" target="\_blank">10456334</a>). The affinity



of GCKR for GCK is modulated by fructose metabolites: GCKR with bound fructose 6-phosphate has increased affinity for GCK, while GCKR with bound fructose 1-phosphate has strongly decreased affinity for GCK and does not inhibit GCK activity (PubMed:<a

 $href="http://www.uniprot.org/citations/23621087" target="\_blank">23621087</a>, PubMed:<a href="http://www.uniprot.org/citations/23733961" target="\_blank">23733961</a>).$ 

#### **Cellular Location**

Cytoplasm. Nucleus. Mitochondrion {ECO:0000250|UniProtKB:Q07071}. Note=Under low glucose concentrations, GCKR associates with GCK and the inactive complex is recruited to the hepatocyte nucleus.

## **Tissue Location**

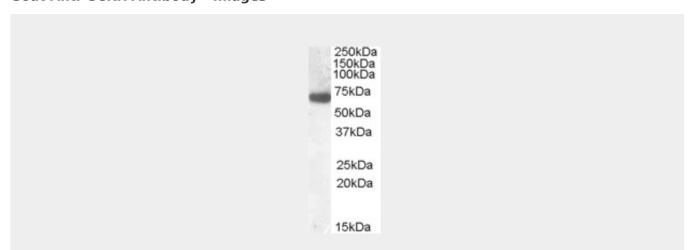
Found in liver and pancreas. Not detected in muscle, brain, heart, thymus, intestine, uterus, adipose tissue, kidney, adrenal, lung or spleen.

# **Goat Anti-GCKR Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- <u>Immunofluorescence</u>
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

# Goat Anti-GCKR Antibody - Images



AF1472a (0.1  $\mu$ g/ml) staining of Rat Liver lysate (35  $\mu$ g protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

## Goat Anti-GCKR Antibody - Background

This gene encodes a protein belonging to the GCKR subfamily of the SIS (Sugar ISomerase) family of proteins. The gene product is a regulatory protein that inhibits glucokinase in liver and pancreatic islet cells by binding non-covalently to form an inactive complex with the enzyme. This gene is considered a susceptibility gene candidate for a form of maturity-onset diabetes of the young (MODY).

## **Goat Anti-GCKR Antibody - References**





Tel: 858.875.1900 Fax: 858.875.1999

Genome-wide association study identifies novel loci for plasma levels of protein C: the ARIC study. Tang W, et al. Blood, 2010 Aug 27. PMID 20802025. Interactions of dietary whole grain intake with fasting glucose- and insulin-related genetic loci in individuals of European descent: a meta-analysis of 14 cohort studies. Nettleton JA, et al. Diabetes Care, 2010 Aug 12. PMID 20693352. COMMON VARIANTS IN 40 GENES ASSESSED FOR DIABETES INCIDENCE AND RESPONSE TO METFORMIN AND LIFESTYLE INTERVENTIONS IN THE DIABETES PREVENTION PROGRAM. Jablonski KA, et al. Diabetes, 2010 Aug 3. PMID 20682687. Pharmacogenetic analysis of lipid responses to rosuvastatin in Chinese patients. Hu M, et al. Pharmacogenet Genomics, 2010 Oct. PMID 20679960. Effects of GCK, GCKR, G6PC2 and MTNR1B variants on glucose metabolism and insulin secretion. Hu C, et al. PLoS One, 2010 Jul 23. PMID 20668700.