10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

GCKR Antibody (N-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8143a

Specification

GCKR Antibody (N-term) - Product Information

Application	**WB, IHC-P,E**
Primary Accession	Q14397
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**1-30**

GCKR Antibody (N-term) - Additional Information

Gene ID 2646

Other Names
Glucokinase regulatory protein, GKRP, Glucokinase regulator, GCKR

Target/Specificity
This GCKR antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human GCKR.

Dilution
WB~~1:1000
IHC-P~~1:50~100
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

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

Precautions
GCKR Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

GCKR Antibody (N-term) - 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:23621087, PubMed:23733961). 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:10456334). 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:23621087, PubMed:23733961).

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.

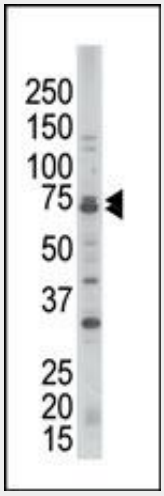
Tissue Location
Found in liver and pancreas. Not detected in muscle, brain, heart, thymus, intestine, uterus, adipose tissue, kidney, adrenal, lung or spleen.

GCKR Antibody (N-term) - Protocols

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

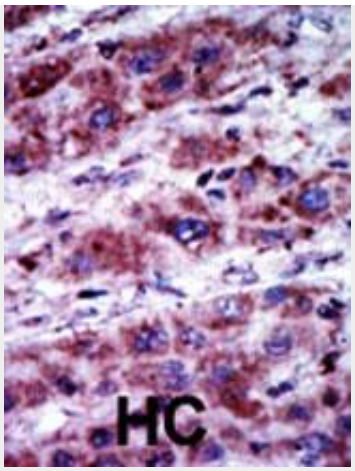
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

GCKR Antibody (N-term) - Images



The anti-GCKR Pab (Cat. #AP8143a) is used in Western blot to detect GCKR in A375 cell lysate.

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

GCKR Antibody (N-term) - Background

GCKR belongs to 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. The GCKR gene is considered a susceptibility gene candidate for a form of maturity-onset diabetes of the young (MODY).

GCKR Antibody (N-term) - References

Veiga-da-Cunha, M., et al., Diabetologia 46(5):704-711 (2003).
Hayward, B.E., et al., Genomics 49(1):137-142 (1998).
Hayward, B.E., et al., Mamm. Genome 7(6):454-458 (1996).
Warner, J.P., et al., Mamm. Genome 6(8):532-536 (1995).
Vaxillaire, M., et al., Diabetes 43(3):389-395 (1994).