

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 Ig
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

Format

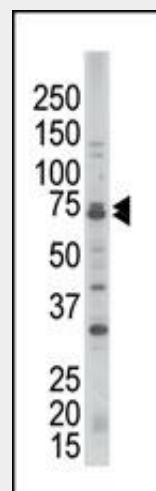
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

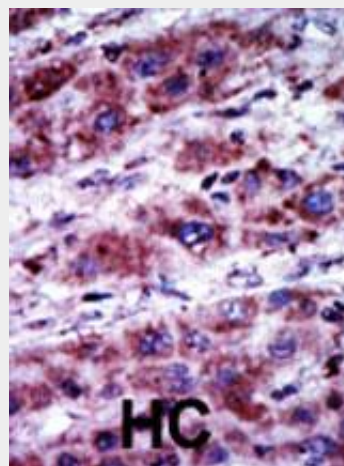
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

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



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



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 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 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).

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 Cytometry](#)
- [Cell Culture](#)