

GK Antibody (N-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP12927A

Specification

GK Antibody (N-term) - Product Information

Application	WB, IHC-P,E
Primary Accession	P32189
Other Accession	Q63060 , Q64516 , Q0IID9 , Q14409 , NP_976325.1 , NP_001121599.1
Reactivity	Human
Predicted	Bovine, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	61245
Antigen Region	24-51

GK Antibody (N-term) - Additional Information

Gene ID 2710

Other Names

Glycerol kinase, GK, Glycerokinase, ATP:glycerol 3-phosphotransferase, GK

Target/Specificity

This GK antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 24-51 amino acids from the N-terminal region of human GK.

Dilution

WB~~1:1000
IHC-P~~1:10~50

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

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

GK Antibody (N-term) - Protein Information

Name GK ([HGNC:4289](#))

Function Kinase that plays a key role in glycerol metabolism, catalyzing its phosphorylation to produce sn-glycerol 3-phosphate. Sn- glycerol 3-phosphate is a crucial intermediate in various metabolic pathways, such as the synthesis of glycerolipids and triglycerides, glycogenesis, glycolysis and gluconeogenesis.

Cellular Location

Mitochondrion outer membrane; Single-pass membrane protein. Nucleus. Cytoplasm, cytosol. Note=Glycerol kinase activity is more cytosolic in some tissues. It probably represents the expression of isoforms lacking a transmembrane domain [Isoform 4]: Cytoplasm, cytosol. Note=In adult tissues, such as liver the glycerol kinase activity is more cytosolic. It probably represents the expression of this isoform which lacks a transmembrane domain

Tissue Location

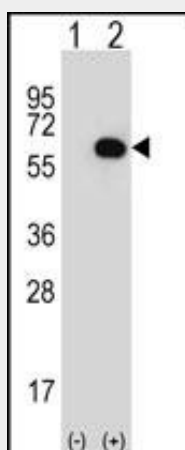
[Isoform 2]: Widely expressed in fetal and adult tissues. [Isoform 4]: The sole isoform expressed in adult liver and kidney.

GK Antibody (N-term) - Protocols

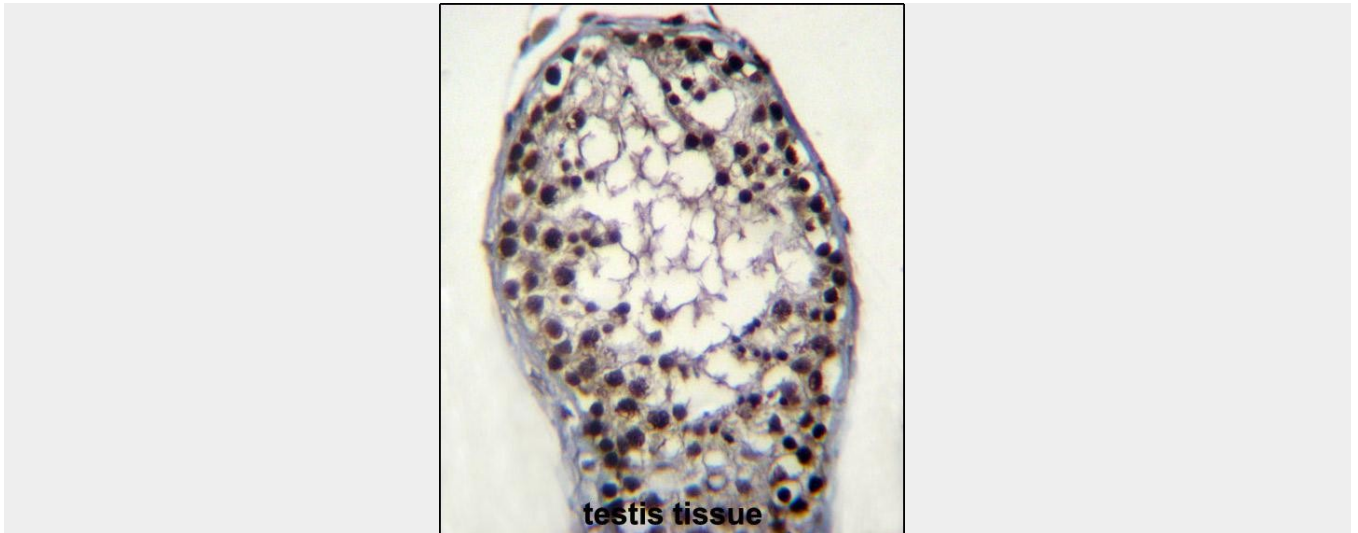
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

GK Antibody (N-term) - Images



Western blot analysis of GK (arrow) using rabbit polyclonal GK Antibody (N-term) (Cat. #AP12927a). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the GK gene.



GK Antibody (N-term) (Cat. #AP12927a) immunohistochemistry analysis in formalin fixed and paraffin embedded human testis tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of GK Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.

GK Antibody (N-term) - Background

The product of this gene belongs to the FGGY kinase family of proteins and encodes glycerol kinase. Glycerol kinase is a key enzyme in the regulation of glycerol uptake and metabolism. It catalyzes the phosphorylation of glycerol by ATP, yielding ADP and glycerol-3-phosphate. Defects in this gene are the cause of glycerol kinase deficiency (GKD). Alternatively spliced transcript variants encoding different isoforms have been identified.

GK Antibody (N-term) - References

Lu, Y., et al. *J. Lipid Res.* 49(12):2582-2589(2008)
Zhang, Y.H., et al. *Pediatr. Res.* 59 (4 PT 1), 590-592 (2006) :
Ohira, R.H., et al. *Biochem. Biophys. Res. Commun.* 331(1):239-246(2005)
Stepanian, S.V., et al. *Mol. Genet. Metab.* 80(4):412-418(2003)
Hellerud, C., et al. *Clin. Chem. Lab. Med.* 41(1):46-55(2003)