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Glycerol kinase (GPK2) Antibody (C-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7131b

Specification

Glycerol kinase (GPK2) Antibody (C-term) - Product Information

Application	**WB, IHC-P,E**
Primary Accession	Q14410
Other Accession	P32189, Q0IID9, Q4R4D5, Q14409
Reactivity	**Human**
Predicted	**Monkey, Bovine**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**60594**
Antigen Region	**487-515**

Glycerol kinase (GPK2) Antibody (C-term) - Additional Information

Gene ID 2712

Other Names
Glycerol kinase 2, GK 2, Glycerokinase 2, ATP:glycerol 3-phosphotransferase 2, Glycerol kinase, testis specific 2, GK2, GKP2, GKTA

Target/Specificity
This Glycerol kinase (GPK2) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 487-515 amino acids from the C-terminal region of human Glycerol kinase (GPK2).

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 prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

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
Glycerol kinase (GPK2) Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Glycerol kinase (GPK2) Antibody (C-term) - Protein Information

Name GK2

Synonyms GKP2, GKTA

Function Key enzyme in the regulation of glycerol uptake and metabolism. Essential for male fertility and sperm mitochondrial sheath formation (By similarity). Required for proper arrangement of crescent- like mitochondria to form the mitochondrial sheath during spermatogenesis (By similarity). Can induce mitochondrial clustering through interactions with PLD6 and up-regulation of phosphatidic acid synthesis in the mitochondria (PubMed:28852571).

Cellular Location
Mitochondrion outer membrane {ECO:0000250|UniProtKB:Q9WU65}; Single-pass type IV membrane protein {ECO:0000250|UniProtKB:Q9WU65}. Cytoplasm. Note=In sperm the majority of the enzyme is bound to mitochondria {ECO:0000250|UniProtKB:Q9WU65}

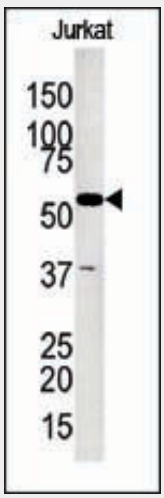
Tissue Location
Testis-specific (PubMed:33536340). Expressed in the midpiece of spermatozoa (PubMed:28852571)

Glycerol kinase (GPK2) Antibody (C-term) - Protocols

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

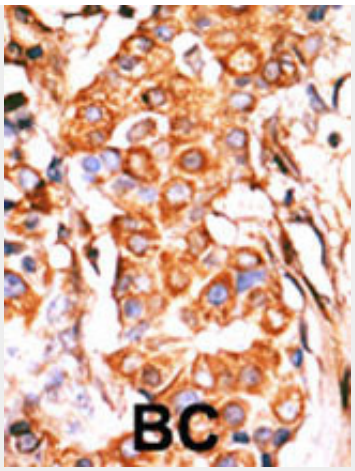
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Glycerol kinase (GPK2) Antibody (C-term) - Images



The anti-GKP2 Pab (Cat. #AP7131b) is used in Western blot to detect GKP2 in Jurkat tissue lysate

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

Glycerol kinase (GPK2) Antibody (C-term) - Background

The human glycerol kinase gene family consists of at least 3 expressed loci. The GK1 locus on Xp21.3 is the site of mutations (deletions) causing glycerol kinase deficiency. It comprises 19 exons and is probably ancestral to several other genes which, because they are intronless, are suspected of having arisen by reverse transcriptase mediated events. These include 2 genes on chromosome 4. They are expressed as a single mRNA species in testis where expression is at a high level.

Glycerol kinase (GPK2) Antibody (C-term) - References

Sargent, C.A., et al., Hum. Mol. Genet. 3(8):1317-1324 (1994).