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Glycerol kinase (GPK2) Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AW5534

Specification

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

Application	**WB, IHC-P,E**
Primary Accession	Q14410
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**H=61;M=61 KDa**
Isotype	**Rabbit IgG**
Antigen Source	**HUMAN**

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

Gene ID 2712

Antigen Region
487-515

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

Dilution
WB~~1:1000
IHC-P~~1:50~100

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).

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}

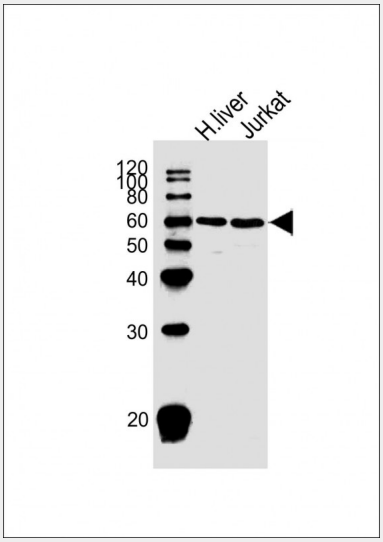
Tissue Location
Testis-specific (PubMed:33536340). Expressed in the midpiece of spermatozoa (PubMed:28852571)

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

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

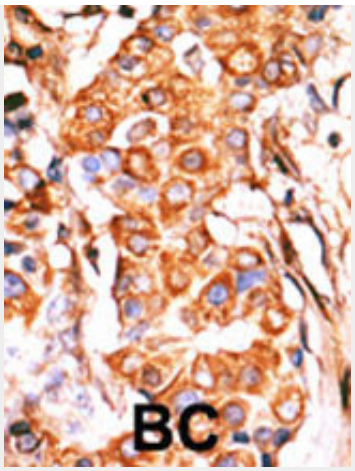
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

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



All lanes : Anti-GPK2/3 Antibody (T502) at 1:1000 dilution Lane 1: human liver lysate Lane 2: Jurkat whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 61 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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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).