

**Glycerol kinase (GPK2) Antibody (C-term)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AW5534**

**Specification**

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

Application	IHC-P, WB,E
Primary Accession	<a href="#">Q14410</a>
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**

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

**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:<a href="http://www.uniprot.org/citations/28852571" target="\_blank">28852571</a>).

### 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

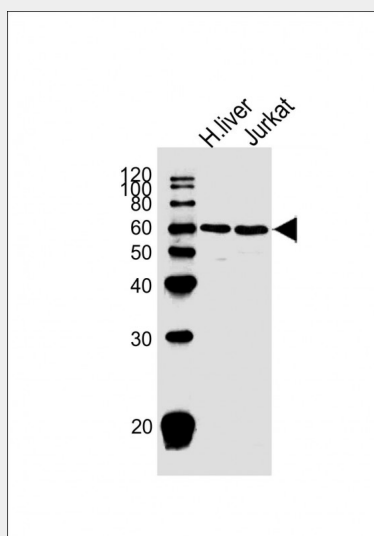
Testis-specific (PubMed:33536340). Expressed in the midpiece of spermatozoa (PubMed:28852571)

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

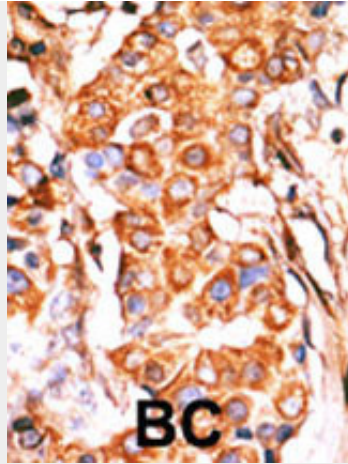
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [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% NFD/MTBST.



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).