10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Glycerol kinase (GPK2) Antibody (C-term) Blocking peptide

Synthetic peptide
Catalog # BP7131b

Specification

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

Primary Accession Q14410

Glycerol kinase (GPK2) Antibody (C-term) Blocking peptide - 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
The synthetic peptide sequence used to generate the antibody AP7131b was selected from the C-term region of human GPK2. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

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

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

- Blocking Peptides

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

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

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