

## **Anti-PGK1 Rabbit Monoclonal Antibody**

Catalog # ABO13384

# **Specification**

# **Anti-PGK1 Rabbit Monoclonal Antibody - Product Information**

Application WB, IF, ICC, FC

Primary Accession
Host
Rabbit
Isotype
Rabbit IgG

Reactivity Rat, Human, Mouse

Clonality Monoclonal Format Liquid

**Description** 

Anti-PGK1 Rabbit Monoclonal Antibody . Tested in WB, ICC/IF, Flow Cytometry applications. This antibody reacts with Human, Mouse, Rat.

# **Anti-PGK1 Rabbit Monoclonal Antibody - Additional Information**

**Gene ID 5230** 

### **Other Names**

Phosphoglycerate kinase 1, 2.7.2.3, Cell migration-inducing gene 10 protein, Primer recognition protein 2, PRP 2, PGK1, PGKA

Calculated MW 44615 MW KDa

## **Application Details**

WB 1:500-1:2000<br>ICC/IF 1:50-1:200<br>FC 1:50

## **Subcellular Localization**

Cytoplasm.

#### **Contents**

Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

#### **Immunogen**

A synthesized peptide derived from human PGK1

# **Purification**

Affinity-chromatography

Storage Store at -20°C for one year. For short term

storage and frequent use, store at 4°C for

up to one month. Avoid repeated

freeze-thaw cycles.

# **Anti-PGK1 Rabbit Monoclonal Antibody - Protein Information**



### Name PGK1

# Synonyms PGKA

#### **Function**

Catalyzes one of the two ATP producing reactions in the glycolytic pathway via the reversible conversion of 1,3- diphosphoglycerate to 3-phosphoglycerate (PubMed: <a  $href="http://www.uniprot.org/citations/30323285" target="\_blank">30323285</a>, PubMed: <a href="http://www.uniprot.org/citations/7391028" target="\_blank">7391028</a>). Both L- and D$ forms of purine and pyrimidine nucleotides can be used as substrates, but the activity is much lower on pyrimidines (PubMed:<a href="http://www.uniprot.org/citations/18463139" target=" blank">18463139</a>). In addition to its role as a glycolytic enzyme, it seems that PGK1 acts as a polymerase alpha cofactor protein (primer recognition protein) (PubMed: <a href="http://www.uniprot.org/citations/2324090" target=" blank">2324090</a>). Acts as a protein kinase when localized to the mitochondrion where it phosphorylates pyruvate dehydrogenase kinase PDK1 to inhibit pyruvate dehydrogenase complex activity and suppress the formation of acetyl- coenzyme A from pyruvate, and consequently inhibit oxidative phosphorylation and promote glycolysis (PubMed:<a href="http://www.uniprot.org/citations/26942675" target=" blank">26942675</a>, PubMed:<a href="http://www.uniprot.org/citations/36849569" target="\_blank">36849569</a>). May play a role in sperm motility (PubMed: <a href="http://www.uniprot.org/citations/26677959" target=" blank">26677959</a>).

#### **Cellular Location**

Cytoplasm, cytosol. Mitochondrion matrix. Note=Hypoxic conditions promote mitochondrial targeting (PubMed:26942675). Targeted to the mitochondrion following phosphorylation by MAPK1/ERK2, cis-trans isomerization by PIN1, and binding to mitochondrial circRNA mcPGK1 (PubMed:36849569).

## **Tissue Location**

Mainly expressed in spermatogonia. Localized on the principle piece in the sperm (at protein level). Expression significantly decreased in the testis of elderly men

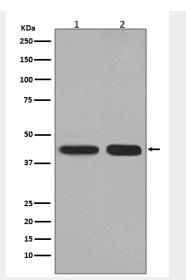
### Anti-PGK1 Rabbit Monoclonal Antibody - Protocols

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

## Anti-PGK1 Rabbit Monoclonal Antibody - Images





Western blot analysis of PGK1 expression in (1) HepG2 cell lysate; (2) Mouse kidney lysate.