

**KD-Validated Anti-Phosphoglycerate kinase 1 Rabbit Monoclonal Antibody**  
**Rabbit monoclonal antibody**  
**Catalog # AGI1266****Specification****KD-Validated Anti-Phosphoglycerate kinase 1 Rabbit Monoclonal Antibody - Product Information**

Application	WB, FC
Primary Accession	<a href="#">P00558</a>
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Calculated MW	Predicted, 45 kDa , observed, 45 kDa KDa
Gene Name	PGK1
Aliases	PGK1; Phosphoglycerate Kinase 1; Cell Migration-Inducing Gene 10 Protein; Primer Recognition Protein; EC 2.7.2.3; PRP; PGKA; Epididymis Secretory Sperm Binding Protein Li 68p; HEL-S-68p; MIG10
Immunogen	A synthesized peptide derived from human PGK1

**KD-Validated Anti-Phosphoglycerate kinase 1 Rabbit Monoclonal Antibody - Additional Information**

Gene ID	5230
<b>Other Names</b>	
Phosphoglycerate kinase 1, 2.7.11.1, 2.7.2.3, Cell migration-inducing gene 10 protein, Primer recognition protein 2, PRP 2, PGK1, PGKA	

**KD-Validated Anti-Phosphoglycerate kinase 1 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

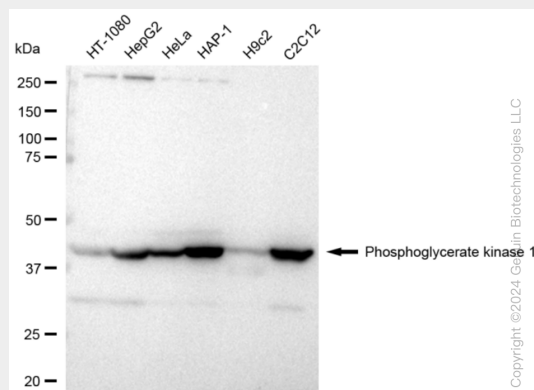
Mainly expressed in spermatogonia. Localized on the principle piece in the sperm (at protein level). Expression significantly decreased in the testis of elderly men

### KD-Validated Anti-Phosphoglycerate kinase 1 Rabbit Monoclonal Antibody - Protocols

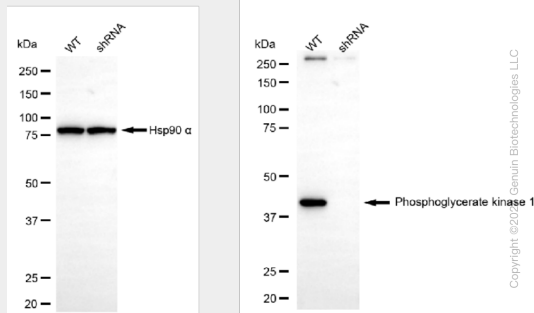
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

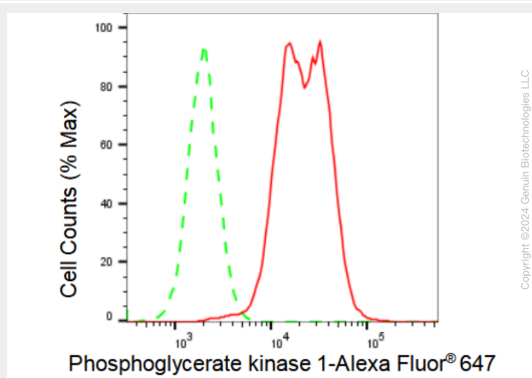
### KD-Validated Anti-Phosphoglycerate kinase 1 Rabbit Monoclonal Antibody - Images



Western blotting analysis using anti-Phosphoglycerate kinase 1 antibody (Cat#AGI1266). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-Phosphoglycerate kinase 1 antibody (Cat#AGI1266, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-Phosphoglycerate kinase 1 antibody (Cat#AGI1266). Phosphoglycerate kinase 1 expression in wild type (WT) and phosphoglycerate kinase 1 shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-Phosphoglycerate kinase 1 antibody (Cat#AGI1266, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of Phosphoglycerate kinase 1 expression in HAP-1 cells using Phosphoglycerate kinase 1 antibody (Cat#AGI1266, 1:2,000). Green, isotype control; red, Phosphoglycerate kinase 1.