

DATASHEET

PGK1 Mouse Monoclonal Antibody(C3554)

CAT. NO. AMA03166

KEY FEATURES

Target	PGK1	Source / Host	Mouse
Reactivity	Human, Mouse	Clonality	Monoclonal
Applications	WB, IHC, FC	Conjugation	Unconjugated
Form / Buffer	Mouse IgG2a kappa. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.	Storage	at-20°C

BACKGROUND

Catalyzes one of the two ATP producing reactions in the glycolytic pathway via the reversible conversion of 1,3-diphosphoglycerate to 3-phosphoglycerate . Both L- and D- forms of purine and pyrimidine nucleotides can be used as substrates, but the activity is much lower on pyrimidines . In addition to its role as a glycolytic enzyme, it seems that PGK1 acts as a polymerase alpha cofactor protein (primer recognition protein) . 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 . May play a role in sperm motility .

APPLICATION

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

WB	1:500 - 1:2000
IHC	1:50 - 1:100
FC	1:50 - 1:100

*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

PRODUCT OVERVIEW

Description	Mouse monoclonal antibody to PGK1
Specificity	Recognizes endogenous levels of PGK1 protein.
Antibody Type	Primary antibody
Immunogen	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human PGK1. The exact sequence is proprietary.
Purification	The antibody was purified by immunogen affinity chromatography.
Molecular Weight	Predicted: 44 kD; Observed: 44 kD
Form/Buffer	Mouse IgG2a kappa. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Alternative Names	PGKA; Phosphoglycerate kinase 1; Cell migration-inducing gene 10 protein; Primer recognition protein 2; PRP 2
Gene Symbol	PGK1
Entrez Gene	5230(Human); 18655(Mouse)
SwissProt	P00558(Human); P09411(Mouse)

*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact info@arexbio.com or your local distributor.

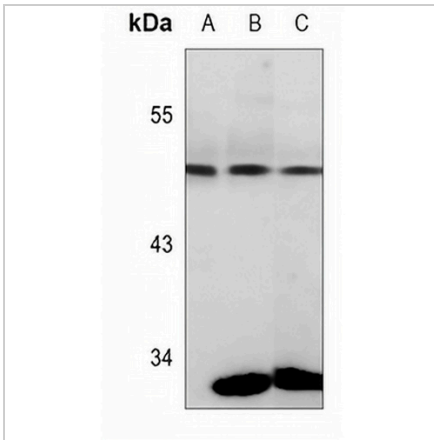
*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

DATASHEET

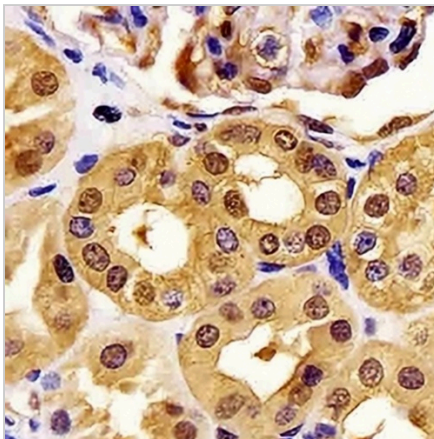
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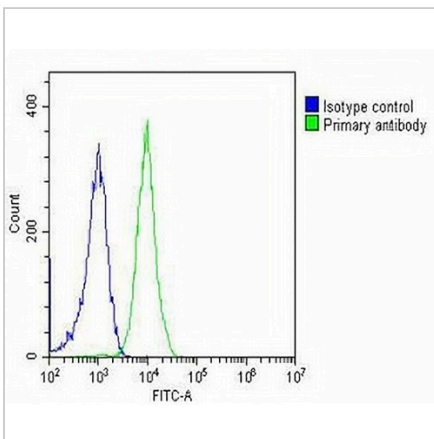
DATA



Western blot analysis of PGK1 expression in HEK293T (A), A431 (B), mouse brain (C) whole cell lysates. (Predicted band size: 44 kD; Observed band size: 44 kD)



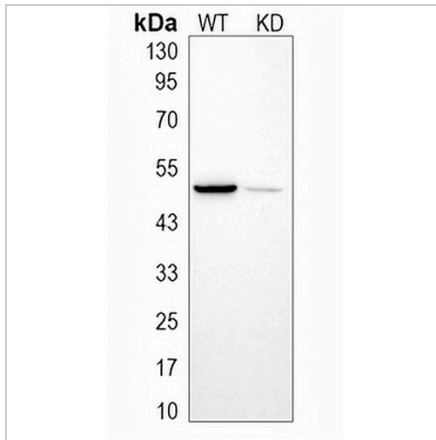
Immunohistochemical analysis of PGK1 staining in human kidney formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Overlay histogram showing Jurkat cells stained with Anti-PGK1 Antibody (green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then incubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by Anti-PGK1 Antibody for 60 min at 37 °C. The secondary antibody used was Goat Anti-Mouse IgG (H&L) - AREX® Fluor 488 at 1/200 dilution for 40 min at 37 °C. Isotype control antibody (blue line) was mouse IgG2a (1 µg/1x10⁶ cells) used under the same conditions. Acquisition of >10, 000 events was performed.

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DATA (CONTINUED)

Western blot analysis of PGK1 expression in wild type (WT) and knockdown (KD) HeLa cell lysates.

STORAGE

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

NOTE

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.