abcam

Product datasheet

Anti-PGK1 antibody [EPR19057] ab199438

Recombinant RabMAb

★★★★★ 1 Abreviews 11 References 8 Images

Overview

Product name Anti-PGK1 antibody [EPR19057]

Description Rabbit monoclonal [EPR19057] to PGK1

Host species Rabbit

Specificity ab199438 has weak cross-reactivity with PGK2

Tested applications Suitable for: Flow Cyt (Intra), WB, ICC/IF

Species reactivity Reacts with: Mouse, Rat, Human

Immunogen Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

Positive control WB: HeLa, HepG2, Jurkat, C6, RAW 264.7, PC-12 and NIH/3T3 whole cell lysates; Human fetal

brain and fetal heart lysates; Mouse brain, heart and kidney lysates; Rat brain, heart and kidney

lysates. ICC/IF: HeLa and Jurkat cells. Flow Cyt (intra): HeLa cells.

General notes This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility

- Improved sensitivity and specificity

- Long-term security of supply

- Animal-free production

For more information see here.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb**® **patents**.

Properties

Form Liquid

Storage instructions Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long

term. Avoid freeze / thaw cycle.

Storage buffer pH: 7.2

Preservative: 0.01% Sodium azide

Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA

Purity Protein A purified

Clonality Monoclonal

Clone number EPR19057

Isotype ΙgG

Applications

The Abpromise guarantee

Our <u>Abpromise guarantee</u> covers the use of ab199438 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		1/150.
WB	****(1)	1/1000 - 1/2000. Detects a band of approximately 45 kDa (predicted molecular weight: 45 kDa).
ICC/IF		1/250.

Target

Function In addition to its role as a glycolytic enzyme, it seems that PGK-1 acts as a polymerase alpha

cofactor protein (primer recognition protein).

Pathway Carbohydrate degradation; glycolysis; pyruvate from D-glyceraldehyde 3-phosphate: step 2/5.

Involvement in disease Defects in PGK1 are the cause of phosphoglycerate kinase 1 deficiency (PGK1D) [MIM:300653].

It is a condition with a highly variable clinical phenotype that includes hemolytic anemia,

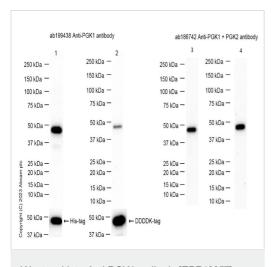
rhabdomyolysis, myopathy and neurologic involvement. Patients can express one or more of

these manifestations.

Sequence similarities Belongs to the phosphoglycerate kinase family.

Cellular localization Cytoplasm.

Images



Western blot - Anti-PGK1 antibody [EPR19057] (ab199438)

Lanes 1-2: Anti-PGK1 antibody [EPR19057] (ab199438) at 1/1000 dilution

Lanes 3-4: Anti-IL-21R antibody [RM0109-7F27] (**ab86742**) at 1/5000 dilution

Lanes 1 & 3 : PGK1 Human Recombinant Protein

Lanes 2 & 4 : PGK2 Human Recombinant Protein

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) (<u>ab97051</u>) at 1/20000 dilution

Predicted band size: 45 kDa

Exposure time: 5 seconds

Blocking and Diluting Buffer: 5% NFDM /TBST

Lanes 3 and 4 Exposure: 60 seconds

All lanes : Anti-PGK1 antibody [EPR19057] (ab199438) at 1/2000 dilution

Lane 1 : HeLa (Human epithelial cells from cervix adenocarcinoma) whole cell lysate

Lane 2: HepG2 (Human liver hepatocellular carcinoma) whole cell lysate

Lane 3: Jurkat (Human T cell leukemia cells from peripheral blood) whole cell lysate

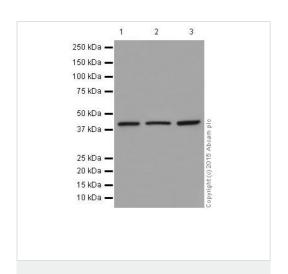
Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit $\lg G \ H\&L \ (HRP) \ (\underline{ab97051})$ at 1/100000 dilution

Predicted band size: 45 kDa **Observed band size:** 45 kDa

Exposure time: 1 second



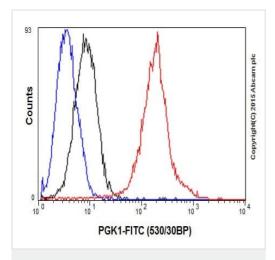
Western blot - Anti-PGK1 antibody [EPR19057] (ab199438)

Blocking/Dilution buffer: 5% NFDM/TBST.

ab199438 MERGED

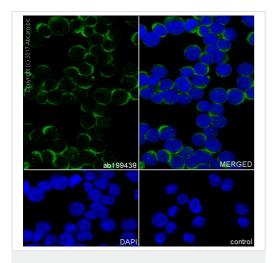
Immunocytochemistry/ Immunofluorescence - Anti-PGK1 antibody [EPR19057] (ab199438)

Immunofluorescent analysis of 100% methanol-fixed HeLa (human epithelial cell line from cervix adenocarcinoma) cells labeling PGK1 with ab199438 at 1/250 dilution, followed by Goat anti-rabbit lgG (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green). Confocal image showing cytoplasmic and weak nuclear staining in HeLa cells. The nuclear counterstain is DAPI (blue).



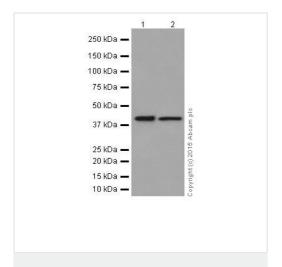
Flow Cytometry (Intracellular) - Anti-PGK1 antibody [EPR19057] (ab199438)

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed HeLa (Human epithelial cells from cervix adenocarcinoma) cells labeling PGK1 with ab199438 at 1/150 dilution (red) compared with a rabbit monoclonal lgG isotype control (ab172730; black) and an unlabelled control (cells without incubation with primary antibody and secondary antibody; blue). Goat anti rabbit lgG (FITC) at 1/500 dilution was used as the secondary antibody.



Immunocytochemistry/ Immunofluorescence - Anti-PGK1 antibody [EPR19057] (ab199438)

Immunofluorescent analysis of 100% methanol-fixed Jurkat (human T cell leukemia cell line from peripheral blood) cells labeling PGK1 with ab199438 at 1/250 dilution, followed by Goat anti-rabbit lgG (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green). Confocal image showing cytoplasmic and weak nuclear staining in Jurkat cells. The nuclear counterstain is DAPI (blue).



Western blot - Anti-PGK1 antibody [EPR19057]

(ab199438)

All lanes : Anti-PGK1 antibody [EPR19057] (ab199438) at 1/2000 dilution

Lane 1: Human fetal brain lysate
Lane 2: Human fetal heart lysate

Lysates/proteins at 10 µg per lane.

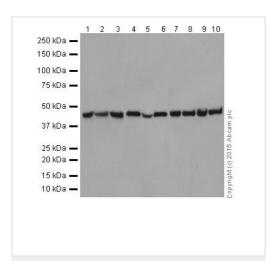
Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) (<u>ab97051</u>) at 1/10000 dilution

Predicted band size: 45 kDa
Observed band size: 45 kDa

Exposure time: 1 second

Blocking/Dilution buffer: 5% NFDM/TBST.



Western blot - Anti-PGK1 antibody [EPR19057] (ab199438)

All lanes : Anti-PGK1 antibody [EPR19057] (ab199438) at 1/2000 dilution

Lane 1 : Mouse brain lysate at 10 μg **Lane 2 :** Mouse heart lysate at 10 μg

Lane 3 : Mouse kidney lysate at 10 μg

Lane 4: Rat brain lysate at 10 μg **Lane 5**: Rat heart lysate at 10 μg

Lane 6 : Rat kidney lysate at 10 μg

Lane 7: C6 (Rat glial tumor cells) whole cell lysate

Lane 8: RAW 264.7 (Mouse macrophage cells transformed with

Abelson murine leukemia virus) whole cell lysate

Lane 9: PC-12 (Rat adrenal gland pheochromocytoma) whole cell

lysate

Lane 10: NIH/3T3 (Mouse embryo fibroblast cells) whole cell lysate

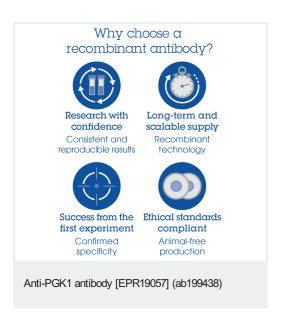
Secondary

All lanes : Goat Anti-Rabbit lgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 45 kDa **Observed band size:** 45 kDa

Exposure time: 1 second

Blocking/Dilution buffer: 5% NFDM/TBST.



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