

Product Name: KD-Validated Phosphoglycerate Kinase 1 Mouse Monoclonal Antibody
Catalog #: KVA00812

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Mouse
Application	WB,FCM,ICC,IHC-P
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Mouse IgG2a kappa
Clonality	Mouse mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000; IHC-P 1:100-1:200
Molecular Weight	Calculated MW: 44.6kDa

Antigen Information

Gene Name	PGK1 PGK1; Phosphoglycerate Kinase 1; Cell Migration-Inducing Gene 10 Protein; Primer
Alternative Names	Recognition Protein; EC 2.7.2.3; PRP; PGKA; Epididymis Secretory Sperm Binding Protein Li 68p; HEL-S-68p; MIG10
Gene ID	5230.0
SwissProt ID	P00558
Immunogen	Recombinant protein of human PGK1

Background

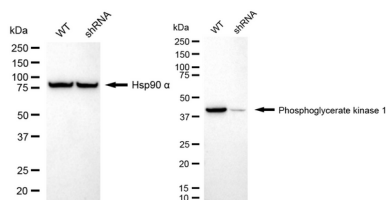
The protein encoded by this gene is a glycolytic enzyme that catalyzes the conversion of 1,3-diphosphoglycerate to 3-phosphoglycerate. The encoded protein may also act as a cofactor for polymerase alpha. Additionally, this protein is secreted

by tumor cells where it participates in angiogenesis by functioning to reduce disulfide bonds in the serine protease, plasmin, which consequently leads to the release of the tumor blood vessel inhibitor angiostatin. The encoded protein has been identified as a moonlighting protein based on its ability to perform mechanistically distinct functions. Deficiency of the enzyme is associated with a wide range of clinical phenotypes hemolytic anemia and neurological impairment. Pseudogenes of this gene have been defined on chromosomes 19, 21 and the X chromosome. [provided by RefSeq, Jan 2014]

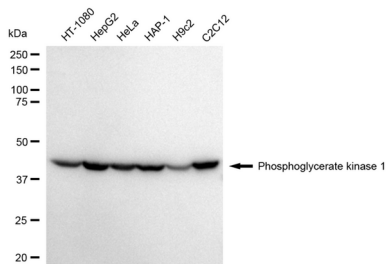
Research Area

Cardiovascular,Signal Transduction,Cancer,Metabolism

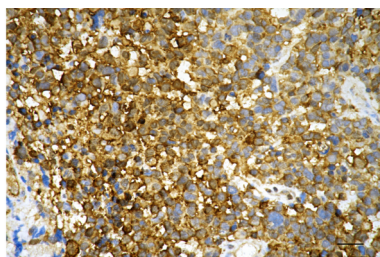
Image Data



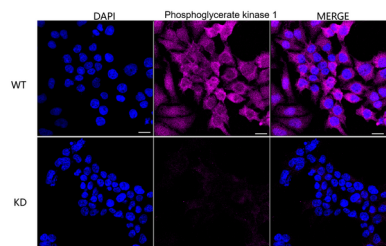
Western blotting analysis using phosphoglycerate kinase 1 antibody (KVA00812). Phosphoglycerate kinase 1 expression in wild-type (WT) and phosphoglycerate kinase 1 (PGK1) shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with phosphoglycerate kinase 1 antibody (KVA00812, 1:5,000) and HRP-conjugated goat anti-mouse secondary antibody (APS0631, 1:10,000) respectively.



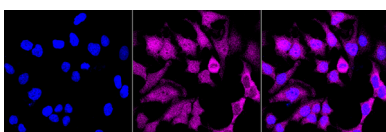
Western blotting analysis using Phosphoglycerate kinase 1 antibody (KVA00812). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with Phosphoglycerate kinase 1 antibody (KVA00812, 1:5,000) and HRP-conjugated goat anti-mouse secondary antibody (APS0631, 1:10,000) respectively.



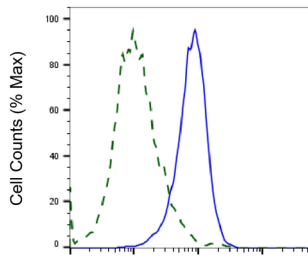
Immunohistochemistry was performed on paraffin-embedded human glioblastoma using phosphoglycerate kinase 1 antibody (KVA00812, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.



Immunocytochemical staining of HeLa cells using Phosphoglycerate kinase 1 antibody (KVA00812, 1:1,000). Top panel: wild-type (WT); Bottom panel: Oxoglutarate receptor 1 shRNA knockdown (KD). Nuclei were stained blue with DAPI; Oxoglutarate receptor 1 was stained magenta with Alexa Fluor® 647. Scale bar, 20 µm. Permeabilization: Triton.



Immunocytochemical staining of HepG2 cells with Phosphoglycerate kinase 1 antibody (KVA00812, 1:1,000). Nuclei were stained blue with DAPI; Phosphoglycerate kinase 1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser intensity and smart gain: High. Scale bar, 20 µm.



Phosphoglycerate kinase 1-Alexa Fluor® 647

Validation of Phosphoglycerate kinase 1 knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with Phosphoglycerate kinase 1 antibody (KVA00812, 1:2,000) and analyzed using CytoFLEX.