

For Research Use Only

# PGAM5 Polyclonal antibody

Catalog Number: 28445-1-AP

11 Publications



## Basic Information

<b>Catalog Number:</b> 28445-1-AP	<b>GenBank Accession Number:</b> BC008196	<b>Purification Method:</b> Antigen affinity purification
<b>Size:</b> 150ul , Concentration: 500 µg/ml by Nanodrop;	<b>GeneID (NCBI):</b> 192111	<b>Recommended Dilutions:</b> WB 1:2000-1:14000 IHC 1:1000-1:4000 IF 1:200-1:800
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> Q96HS1	
<b>Isotype:</b> IgG	<b>Full Name:</b> phosphoglycerate mutase family member 5	
<b>Immunogen Catalog Number:</b> AG28195	<b>Calculated MW:</b> 32 kDa	
	<b>Observed MW:</b> 32 kDa	

## Applications

### Tested Applications:

IF, IHC, WB, ELISA

### Cited Applications:

WB, IHC, IF, ColP

### Species Specificity:

Human

### Cited Species:

human, goat, mouse, pig

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

### Positive Controls:

**WB:** A549 cells, HeLa cells, HepG2 cells, MCF-7 cells

**IHC:** human lung cancer tissue, human breast cancer tissue, human liver cancer tissue

**IF:** MCF-7 cells,

## Background Information

Phosphoglycerate mutase 5 (PGAM5) is a mitochondrial Serine (Ser)/Threonine (Thr) phosphatase normally located in the inner mitochondrial membrane. Upon mitochondrial dysfunction, PGAM5 recruits and dephosphorylates Drp1 at Ser-637, triggers its GTPase activity and promotes mitochondrial fission. PGAM5 regulates mitophagy by stabilizing PINK1 under stress conditions, which recruits E3 ubiquitin ligase PARKIN for degradation of the damaged mitochondria. PGAM5 can be cleaved and released to the cytoplasm through PARKIN, which activates Wnt signaling and induces mitochondrial biogenesis (PMID: 32439975). PGAM5 has 2 isoforms with the molecular mass of 28 and 32 kDa.

## Notable Publications

Author	Pubmed ID	Journal	Application
Meiyu Cheng	35163244	Int J Mol Sci	WB
Shixuan Lin	36581240	Environ Pollut	WB
Marcel V Alavi	34400172	Biochim Biophys Acta Mol Cell Res	WB

## Storage

### Storage:

Store at -20°C. Stable for one year after shipment.

### Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

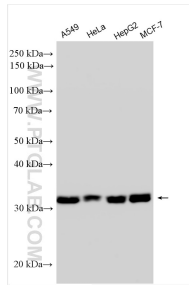
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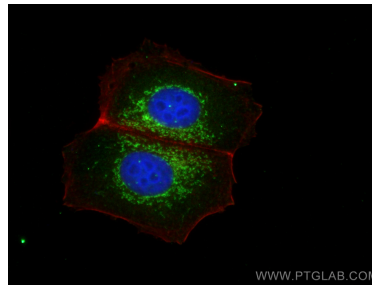
E: proteintech@ptglab.com  
W: ptglab.com

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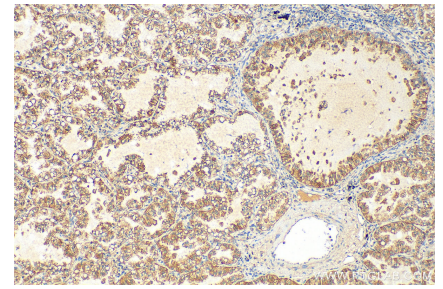
## Selected Validation Data



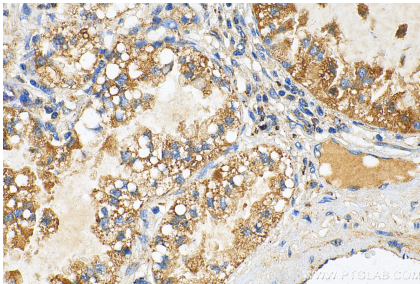
Various lysates were subjected to SDS PAGE followed by western blot with 28445-1-AP (PGAM5 antibody) at dilution of 1:7000 incubated at room temperature for 1.5 hours.



Immunofluorescent analysis of (4% PFA) fixed MCF-7 cells using PGAM5 antibody (28445-1-AP) at dilution of 1:400 and Coralite@488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L), CL594-Phalloidin (red).



Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 28445-1-AP (PGAM5 antibody) at dilution of 1:2000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 28445-1-AP (PGAM5 antibody) at dilution of 1:2000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).