

For Research Use Only

PGAM5 Monoclonal antibody

Catalog Number: 68116-1-Ig **1 Publications**



Basic Information

Catalog Number: 68116-1-Ig	GenBank Accession Number: BC008196	Purification Method: Protein G purification
Size: 150ul , Concentration: 1000 µg/ml by Nanodrop;	GeneID (NCBI): 192111	CloneNo.: 1C8B9
Source: Mouse	Full Name: phosphoglycerate mutase family member 5	Recommended Dilutions: WB 1:5000-1:50000 IHC 1:1000-1:4000
Isotype: IgG1	Calculated MW: 32 kDa	
Immunogen Catalog Number: AG28195	Observed MW: 32 kDa	

Applications

Tested Applications: IHC, WB, ELISA	Positive Controls:
Cited Applications: IF, WB	WB : LNCaP cells, rabbit brain tissue, pig brain tissue, HeLa cells, HepG2 cells, Jurkat cells, K-562 cells, HSC-T6 cells, NIH/3T3 cells
Species Specificity: Human, Mouse, Rat, Pig, Rabbit	IHC : human liver cancer tissue, human lung cancer tissue
Cited Species: rat	

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

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
Liangzhi Zhang	37944441	Biomed Pharmacother	WB,IF

Storage

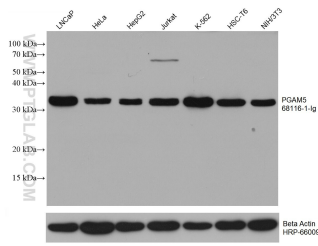
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

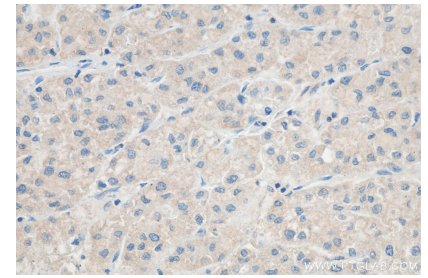
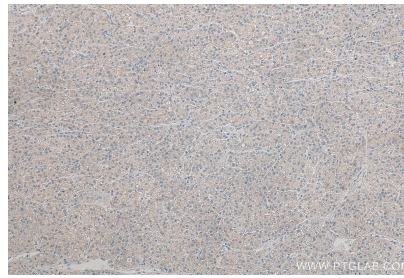
For technical support and original validation data for this product please contact:
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Selected Validation Data



Various lysates were subjected to SDS PAGE followed by western blot with 68116-1-Ig (PGAM5 antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours. The membrane was stripped and reblotted with HRP-conjugated Beta Actin Monoclonal antibody (HRP-66009) as loading control.



Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 68116-1-Ig (PGAM5 antibody) at dilution of 1:2000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).