

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: 1000 µg/ml | GeneID (NCBI): 192111 | CloneNo.: 1C8B9 |
| Source: Mouse | UNIPROT ID: Q96HS1 | Recommended Dilutions: WB 1:5000-1:50000 IHC 1:1000-1:4000 |
| Isotype: IgG1 | Full Name: phosphoglycerate mutase family member 5 | |
| Immunogen Catalog Number: AG28195 | Calculated MW: 32 kDa | |
| | Observed MW: 32 kDa | |

Applications

| | |
|--|--|
| Tested Applications: IHC, WB, ELISA | Positive Controls: |
| Cited Applications: WB, IF | 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 |

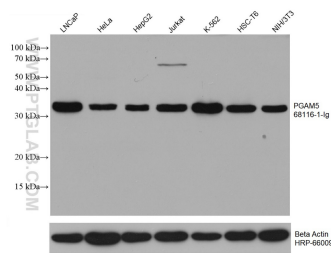
Storage

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

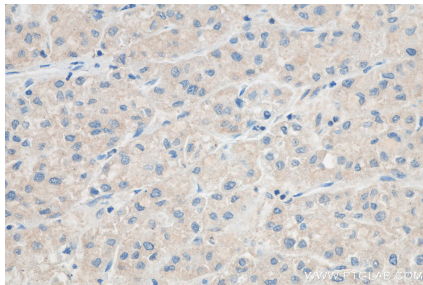
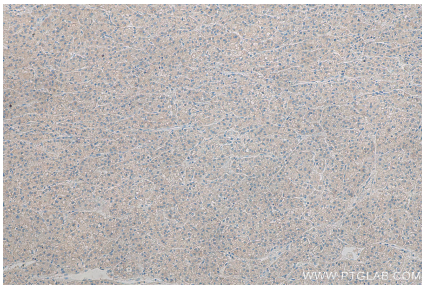
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

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).