Product Datasheet

PFKFB3 Rabbit mAb

Catalog No: #49656

Package Size: #49656-1 50ul #49656-2 100ul

Orders: order@signalwayantibody.com
Support: tech@signalwayantibody.com

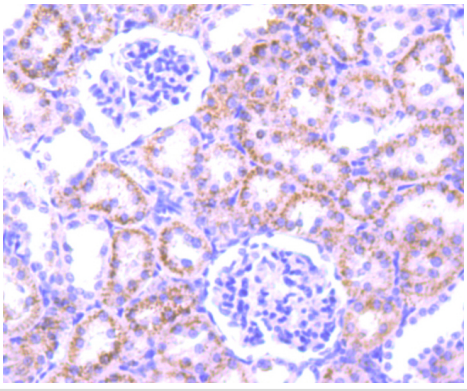
Description

Product Name	PFKFB3 Rabbit mAb
Host Species	Recombinant Rabbit
Clonality	Monoclonal antibody
Purification	ProA affinity purified
Applications	WB, ICC/IF, IHC, FC, IP
Species Reactivity	Human;Mouse;Rat
Immunogen Description	Recombinant protein
Conjugates	Unconjugated
Other Names	6 phosphofructo 2 kinase/ fructose 2,6 bisphosphatase antibody 6 phosphofructo 2 kinase/fructose 2,6 biphosphatase 3 antibody 6-bisphosphatase antibody 6-P2ase 3 antibody 6-P2ASE brain/placenta-type isozyme antibody 6PF 2 K/Fru 2,6 P2ASE brain/placenta type isozyme antibody 6PF 2-K/Fru 2,6 P2ase 3 antibody 6PF-2-K/Fru-2 antibody F263_HUMAN antibody fructose 6 phosphate,2 kinase/fructose 2, 6 bisphosphatase antibody Fructose-2 antibody Inducible 6 phosphofructo 2 kinase/fructose 2,6 bisphosphatase antibody iPFK 2 antibody iPFK-2 antibody IPFK2 antibody PFK/FBPase 3 antibody PFK2 antibody PFKFB3 antibody Renal carcinoma antigen NY REN 56 antibody Renal carcinoma antigen NY-REN-56 antibody uPFK 2 antibody
Accession No.	Swiss-Prot#:Q16875
Calculated MW	60 kDa
SDS-PAGE MW	60 kDa
Formulation	1*TBS (pH7.4), 1%BSA, 40%Glycerol. Preservative: 0.05% Sodium Azide.
Storage	Store at -20°C

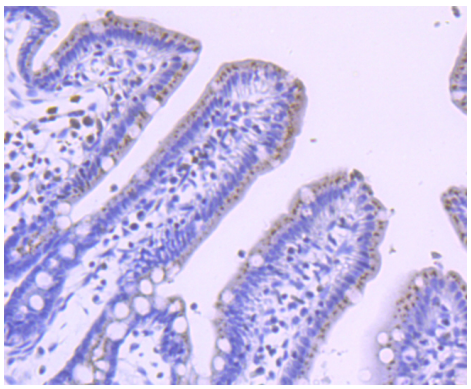
Application Details

WB: 1:500-1:1,000 IHC: 1:50-1:200 ICC/IF: 1:50-1:200FC: 1:50-1:100IP: 1:20-1:50

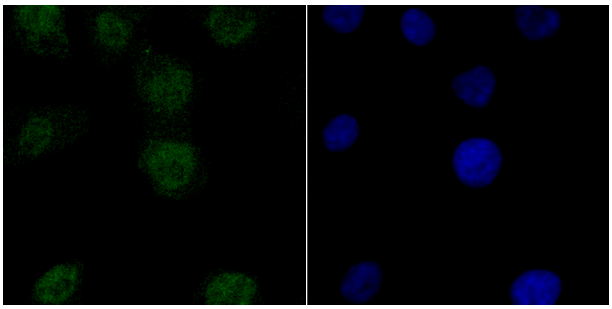
Images



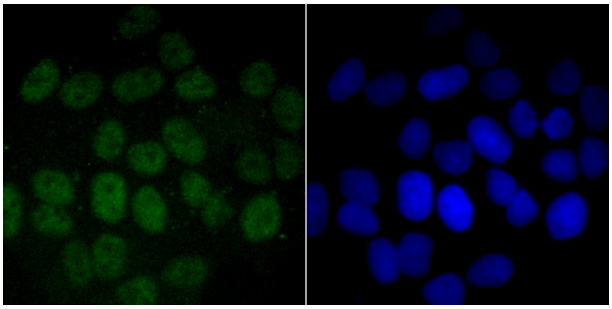
Immunohistochemical analysis of paraffin-embedded rat kidney tissue using anti-PFKFB3 antibody. Counter stained with hematoxylin.



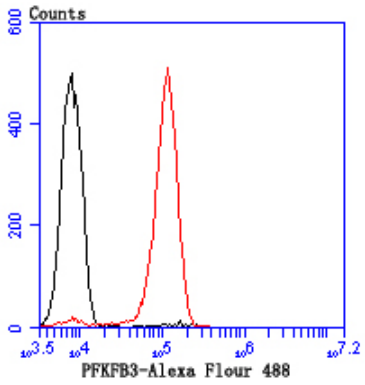
Immunohistochemical analysis of paraffin-embedded mouse colon tissue using anti-PFKFB3 antibody. Counter stained with hematoxylin.



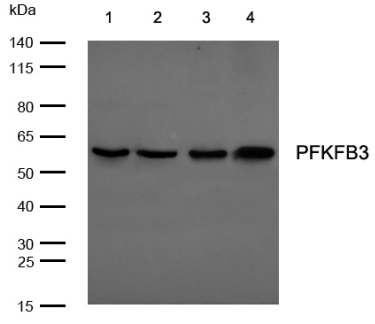
ICC staining PFKFB3 in A549 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



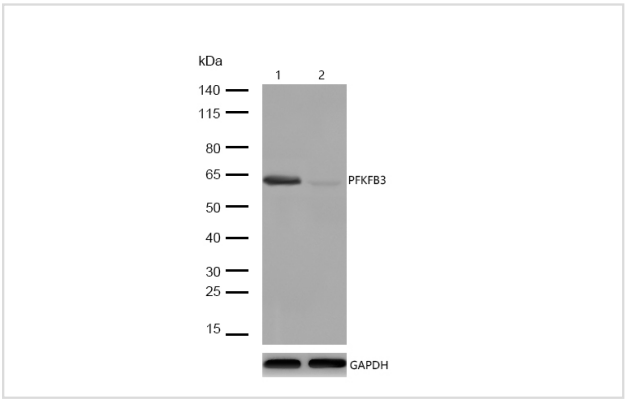
ICC staining PFKFB3 in Hela cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



Flow cytometric analysis of A431 cells with PFKFB3 antibody at 1/100 dilution (red) compared with an unlabelled control (cells without incubation with primary antibody; black).



All lanes: PFKFB3 Rabbit mAb at 1/1k dilutionLane 1 : JK whole cell lysates Lane 2 : K562 whole cell lysates Lane 3 : PC12 whole cell lysates Lane 4 : Mouse spleen lysates Lysates/proteins at 20 µg per lane.SecondaryAll lanes : Goat Anti-Rabbit IgG H&L (HRP) at 1/20000 dilutionPredicted band size: 60 kDa Observed band size: 60 kDaExposure time: 4 seconds



All lanes:PFKFB3 Rabbit mAb at 1/1k dilutionLane 1 : Wild-type HT-1080 cell lysateLane 2 :PFKFB3 Rabbit mAb knockdown HT-1080 cell lysateLysates/proteins at 20 µg per lane.

Background

Among the enzymes playing role in glycolysis,four allosteric PFKFB enzymes 1oΩ½C4 expressed by four independent PFKFB genes, catalyze the rate-limiting phosphorylation of fructose-6-phosphate to fructose-1, 6-bisphosphate, using ATP as the energy source in the glycolysis pathway. Among these four allosteric enzymes, PFKFB3 enzyme retains the highest Kinase/Biphosphatase activity ratio and is expressed by PFKFB3 gene which has been demonstrated to be highly expressed in leukemic cells and in solid tumors. Moreover, mitogenic, hypoxic and inflammatory conditions have an inductive effect on the expression of PFKFB3. Hence upregulation of PFKFB genes specific to cancer cells compared to their normal counterparts (from the same patients) with more robust over-expression in breast and lung cancer make it a more appropriate target.

References

1. Jiang H et al. PFKFB3-Driven Macrophage Glycolytic Metabolism Is a Crucial Component of Innate Antiviral Defense. J Immunol 197:2880-90 (2016).
2. Lu Q et al. Akt inhibition attenuates rasfonin-induced autophagy and apoptosis through the glycolytic pathway in renal cancer cells. Cell Death Dis 6:e2005 (2015).

Published Papers

el at., The glycolysis/HIF-1α axis defines the inflammatory role of IL-4-primed macrophages InCell Rep On2023 May 30byBuyun Dang , Qingxiang Gao et al..PMID:37149865, , (2023)

PMID:37149865

Note: This product is for in vitro research use only and is not intended for use in humans or animals.