10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

PFKP Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8135B

Product Information

Application	IHC-P, WB, E
Primary Accession	Q01813
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	85596
Antigen Region	754-784

Additional Information

Gene ID	5214
Other Names	ATP-dependent 6-phosphofructokinase, platelet type {ECO:0000255|HAMAP-Rule:MF_03184}, ATP-PFK {ECO:0000255|HAMAP-Rule:MF_03184}, PFK-P, 27111 {ECO:0000255|HAMAP-Rule:MF_03184}, 6-phosphofructokinase type C, Phosphofructo-1-kinase isozyme C, PFK-C, Phosphohexokinase {ECO:0000255|HAMAP-Rule:MF_03184}, PFKP, PFKF
Target/Specificity	This PFKP antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 754-784 amino acids from the C-terminal region of human PFKP.
Dilution	IHC-P~~1:100~500 WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	PFKP Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PFKP
Synonyms	PFKF

Function	Catalyzes the phosphorylation of D-fructose 6-phosphate to fructose 1,6-bisphosphate by ATP, the first committing step of glycolysis.
Cellular Location	Cytoplasm {ECO:0000255|HAMAP-Rule:MF_03184}.

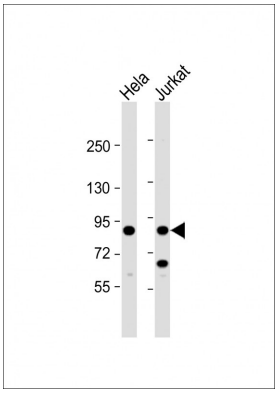
Background

Protein kinases are enzymes that transfer a phosphate group from a phosphate donor, generally the g phosphate of ATP, onto an acceptor amino acid in a substrate protein. By this basic mechanism, protein kinases mediate most of the signal transduction in eukaryotic cells, regulating cellular metabolism, transcription, cell cycle progression, cytoskeletal rearrangement and cell movement, apoptosis, and differentiation. With more than 500 gene products, the protein kinase family is one of the largest families of proteins in eukaryotes. The family has been classified in 8 major groups based on sequence comparison of their tyrosine (PTK) or serine/threonine (STK) kinase catalytic domains. The AGC kinase group consists of 63 kinases including the cyclic nucleotide-regulated protein kinase (PKA & PKG) family, the diacylglycerol-activated/phospholipid-dependent protein kinase C (PKC) family, the related to PKA and PKC (RAC/Akt) protein kinase family, the kinases that phosphorylate G protein-coupled receptors family (ARK), and the kinases that phosphorylate ribosomal protein S6 family (RSK).

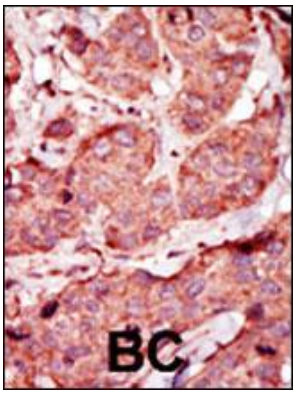
References

Adam, G.C., et al., Mol. Cell Proteomics 1(10):828-835 (2002).
Bonaldo, M.F., et al., Genome Res. 6(9):791-806 (1996).
Morrison, N., et al., Hum. Genet. 89(1):105-106 (1992).
Simpson, C.J., et al., Biochem. Biophys. Res. Commun. 180(1):197-203 (1991).
Nakajima, H., et al., FEBS Lett. 223(1):113-116 (1987).

Images



All lanes : Anti-PFKP Antibody (D769) at 1:8000 dilution Lane 1: Hela whole cell lysate Lane 2: Jurkat whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 86 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

Citations

- Energy management by enhanced glycolysis in G1-phase in human colon cancer cells in vitro and in vivo.
- Nuclear targeting of 6-phosphofructo-2-kinase (PFKFB3) increases proliferation via cyclin-dependent kinases.
- Cytosolic action of thyroid hormone leads to induction of hypoxia-inducible factor-1alpha and glycolytic genes.