Datasheet for ABIN392745

anti-PFKL antibody (C-Term)

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Overview

Quantity:	400 µL
Target:	PFKL
Binding Specificity:	AA 669-699, C-Term
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This PFKL antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p))

Product Details

Immunogen:	This PFKL antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 669-699 amino acids from the C-terminal region of human PFKL.
Clone:	RB03903
Isotype:	Ig Fraction
Purification:	This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Target Details

Target:	PFKL
Alternative Name:	PFKL (PFKL Products)

Target Details

Background:	Phosphofructokinase (PFK), a major regulatory enzyme in all cells of the body, catalyzes the metabolism of sugar, and thereby is pivotal in the production of energy to maintain normal cell function. In human there are three structural loci controlling PFK: M (muscle), L (liver), and P (platelet) type subunits, which are variably expressed in different tissues, human diploid fibroblasts and leukocytes express all three genes. PFK, a tetramer formed by the random association of the products of two separate gene loci to form the five possible tetramers. PFKs of muscle and liver are homotetramers of the M and L subunits, respectively. Red cells have all five isozymes: M4, M3L, M2L2, ML3, and L4. PFK is an allosteric enzyme activated by ADP, AMP, or fructose bisphosphate and inhibited by ATP or citrate. PFK catalyzes the key controlling step of glycolytic pathway. PFK deficiency can present as mild to life-threatening episodic illness. A hallmark sign of this disease is intermittent dark urine, with the color of the urine ranging from orange to dark coffee-brown, which commonly develops following strenuous exercise. The mean red cell PFK is elevated in persons with Down syndrome.
Molecular Weight:	85018
Gene ID:	5211
NCBI Accession:	NP_002617
UniProt:	P17858
Pathways:	Negative Regulation of Hormone Secretion, Warburg Effect

Application Details

Application Notes:	WB: 1:1000. IHC-P: 1:50~100
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	Purified polyclonal antibody supplied in PBS with 0.09 % (W/V) sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Maintain refrigerated at 2-8 °C for up to 6 months. For long term storage store at -20 °C in small

Handling

	aliquots to prevent freeze-thaw cycles.
Expiry Date:	6 months

Publications

Product cited in:

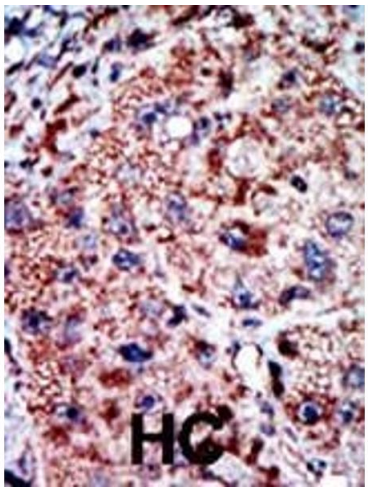
Heydasch, Kessler, Warnke, Eschrich, Scholz, Bigl: "Functional diversity of PFKFB3 splice variants in glioblastomas." in: **PloS one**, Vol. 16, Issue 7, pp. e0241092, (2021) (PubMed).

Lee, Lee, Yun, Jang, Kang, Kim, Choi, Park: "Silver nanoparticles affect glucose metabolism in hepatoma cells through production of reactive oxygen species." in: **International journal of nanomedicine**, Vol. 11, pp. 55-68, (2016) (PubMed).

Reddy, Fernandes, Deshpande, Weisberg, Inguilizian, Abdel-Wahab, Kung, Levine, Griffin, Sattler: "The JAK2V617F oncogene requires expression of inducible phosphofructokinase/fructose-bisphosphatase 3 for cell growth and increased metabolic activity." in: **Leukemia**, Vol. 26, Issue 3, pp. 481-9, (2012) (PubMed).

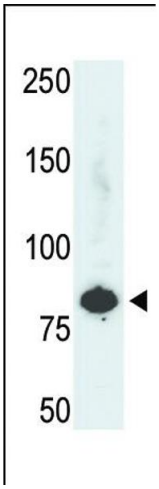
Ando, Uehara, Kogure, Asano, Nakajima, Abe, Kawauchi, Tanaka: "Interleukin 6 enhances glycolysis through expression of the glycolytic enzymes hexokinase 2 and 6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase-3." in: **Journal of Nippon Medical School = Nippon Ika Daigaku zasshi**, Vol. 77, Issue 2, pp. 97-105, (2010) (PubMed).

Yamasaki, Hayashi, Okamoto, Osanai, Lee: "Insulin-independent promotion of chemically induced hepatocellular tumor development in genetically diabetic mice." in: **Cancer science**, Vol. 101, Issue 1, pp. 65-72, (2010) (PubMed).



Immunohistochemistry (Paraffin-embedded Sections)

Image 1. 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.



Western Blotting

Image 2. The anti-PFKL Pab (ABIN392745 and ABIN2842201) is used in Western blot to detect PFKL in HepG2 cell lysate.