Product Name: PFKM Rabbit Polyclonal Antibody
Catalog #: APRab16019

Summary

Production Name	PFKM Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	IHC,WB,
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	PFKM
Alternative Names	PFKM; PFKX; 6-phosphofructokinase; muscle type; Phosphofructo-1-kinase isozyme A; PFK-A; Phosphofructokinase-M; Phosphofructokinase 1; Phosphohexokinase
Gene ID	5213.0
SwissProt ID	P08237.The antiserum was produced against synthesized peptide derived from human PFK-1. AA range:320-369

Application

Dilution Ratio	WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:10000..
Molecular Weight	85kD

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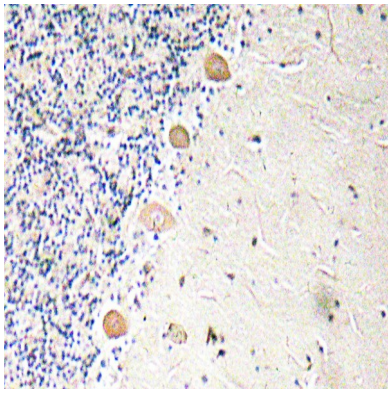
Background

Three phosphofructokinase isozymes exist in humans: muscle, liver and platelet. These isozymes function as subunits of the mammalian tetramer phosphofructokinase, which catalyzes the phosphorylation of fructose-6-phosphate to fructose-1,6-bisphosphate. Tetramer composition varies depending on tissue type. This gene encodes the muscle-type isozyme. Mutations in this gene have been associated with glycogen storage disease type VII, also known as Tarui disease. Alternatively spliced transcript variants have been described.[provided by RefSeq, Nov 2009],catalytic activity:ATP + D-fructose 6-phosphate = ADP + D-fructose 1,6-bisphosphate.,cofactor:Magnesium.,disease:Defects in PFKM are the cause of glycogen storage disease type 7 (GSD7) [MIM:232800]; also known as Tarui disease. GSD7 is an autosomal recessive disorder characterized by exercise intolerance with associated nausea and vomiting. Short bursts of intense activity are particularly difficult. Severe muscle cramps and myoglobinuria develop after vigorous exercise. Most patients obtain a "second wind" when the onset of exercise is followed by a brief rest period. In time patients adjust their activity level and are well compensated.,enzyme regulation:Allosteric enzyme activated by ADP, AMP, or fructose bisphosphate and inhibited by ATP or citrate.,miscellaneous:In human PFK exists as a system of 3 types of subunits, PFKM (muscle), PFKL (liver) and PFKP (platelet) isoenzymes.,pathway:Carbohydrate degradation; glycolysis; D-glyceraldehyde 3-phosphate and glycerone phosphate from D-glucose: step 3/4.,similarity:Belongs to the phosphofructokinase family. Two domains subfamily.,subunit:Tetramer. Muscle is M4, liver is L4, and red cell is M3L, M2L2, or ML3.,

Research Area

Glycolysis / Gluconeogenesis;Pentose phosphate pathway;Fructose and mannose metabolism;Galactose metabolism;

Image Data



Immunohistochemistry analysis of PFK-1 antibody in paraffin-embedded human brain tissue.

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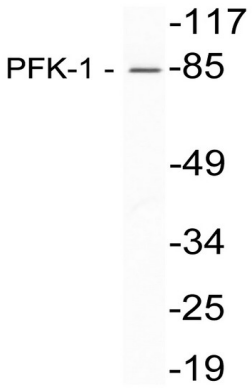
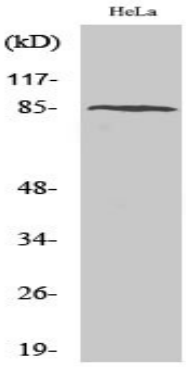
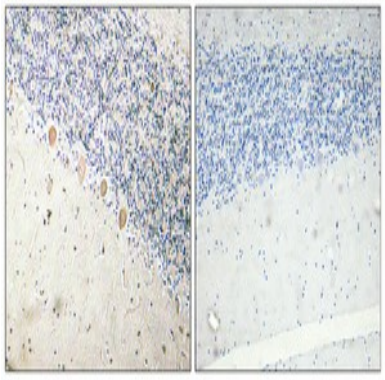


Western blot analysis of lysate from Hela cells, using PFK-1 antibody.



Western Blot analysis of various cells using PFKM Polyclonal Antibody



Immunohistochemical analysis of paraffin-embedded Human brain. Antibody was diluted at 1:100（4°,overnight）. High-pressure and temperature Tris-EDTA,pH8.0 was used for antigen retrieval. Negetive contrl （right） obtaned from antibody was pre-absorbed by immunogen peptide.

Note

For research use only.