

Product datasheet for **AP06742PU-S**

PFKFB1 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	WB
Recommended Dilution:	Western blot: 1/500-1/1000.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Synthetic peptide, corresponding to amino acids 320-370 of Human PFKFB1.
Specificity:	This antibody detects endogenous levels of PFKFB1/4 protein. (region surrounding Glu349)
Formulation:	Phosphate buffered saline (PBS), pH 7.2. State: Aff - Purified State: Liquid purified Ig fraction Preservative: 0.05% sodium azide
Concentration:	1.0 mg/ml
Purification:	Affinity-chromatography using epitope-specific immunogen and the purity is > 95% (by SDS-PAGE)
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	~ 54 kDa
Gene Name:	6-phosphofructo-2-kinase/fructose-2,6-biphosphatase 1
Database Link:	<u>Entrez Gene 18639 Mouse</u> <u>Entrez Gene 24638 Rat</u> <u>Entrez Gene 5207 Human P16118</u>



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Background:

PFKFB (6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase) is a bifunctional enzyme, having both kinase and phosphatase activities residing on the same enzyme subunit but having distinct active sites. PFKFB regulates the steady-state concentration of fructose-2,6-bisphosphate, a potent activator of a key regulatory enzyme of glycolysis, phosphofructokinase. To date, four PFKFB isozymes (PFKFB 1-4) have been described, which show differences in their tissue distribution and kinetic properties in response to allosteric effectors and hormonal signals. Among the PFKFB's PFKFB3 has the highest kinase:phosphatase ratio, in part because it lacks the characteristic serine phosphorylation site near the N-terminal that down-modulates kinase activity. PFKFB3 was first described in the rapidly growing placenta. The glucolytic rate in placenta is accelerated by anoxia and by maternal diabetes. Cancer cells maintain a high glycolytic rate even in the presence of oxygen, a phenomenon known as the Warburg effect. The glycolytic rate in the placenta, another fast-growing tissue, is accelerated by anoxia and by maternal diabetes.

Synonyms:

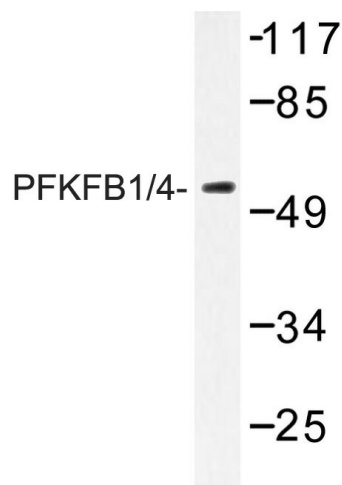
F6PK, PFRX, PFK/FBPase 1, PFK-2 liver

Protein Families:

Druggable Genome

Protein Pathways:

Fructose and mannose metabolism

Product images:

Western blot (WB) analysis of PFKFB1/4 antibody in extracts from HeLa cells.