

PFKFB3 Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP8145a**Specification**

PFKFB3 Antibody (N-term) Blocking Peptide - Product InformationPrimary Accession [Q16875](#)**PFKFB3 Antibody (N-term) Blocking Peptide - Additional Information**

Gene ID 5209

Other Names

6-phosphofructo-2-kinase/fructose-2, 6-bisphosphatase 3, 6PF-2-K/Fru-2, 6-P2ase 3, PFK/FBPase 3, 6PF-2-K/Fru-2, 6-P2ase brain/placenta-type isozyme, Renal carcinoma antigen NY-REN-56, iPFK-2, 6-phosphofructo-2-kinase, Fructose-2, 6-bisphosphatase, PFKFB3

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP8145a](/product/products/AP8145a) was selected from the N-term region of human PFKFB3. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

PFKFB3 Antibody (N-term) Blocking Peptide - Protein Information**Name** PFKFB3**Function**

Catalyzes both the synthesis and degradation of fructose 2,6- bisphosphate.

Tissue Location

Ubiquitous.

PFKFB3 Antibody (N-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

PFKFB3 Antibody (N-term) Blocking Peptide - Images

PFKFB3 Antibody (N-term) Blocking Peptide - 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.

PFKFB3 Antibody (N-term) Blocking Peptide - References

Navarro-Sabate, A., et al., Gene 264(1):131-138 (2001). Chesney, J., et al., Proc. Natl. Acad. Sci. U.S.A. 96(6):3047-3052 (1999). Sakakibara, R., et al., J. Biochem. 122(1):122-128 (1997). Hamilton, J.A., et al., Mol. Endocrinol. 11(4):490-502 (1997). Sakai, A., et al., J. Biochem. 119(3):506-511 (1996).