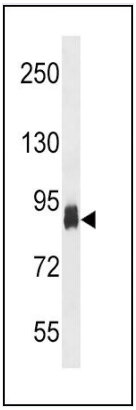
# PFKP Antibody – Rabbit Polyclonal

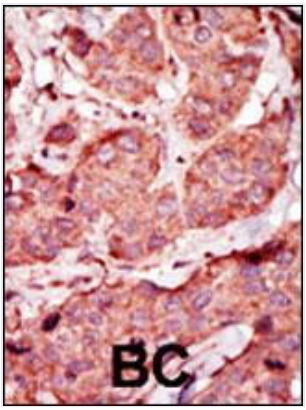
## PRODUCT OVERVIEW

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| **Product Name** | PFKP, Polyclonal Antibody |
| **Full Product Name** | PFKP, CT (PFKP, PFKF, 6-phosphofructokinase type C, 6-phosphofructokinase, platelet type, Phosphofructo-1-kinase isozyme C, Phosphofructokinase 1, Phosphohexokinase) |
| **Product Gene Name** | anti-PFKP antibody |
| **Product Synonym Names** | Anti -PFKP, CT (PFKP, PFKF, 6-phosphofructokinase type C, 6-phosphofructokinase, platelet type, Phosphofructo-1-kinase isozyme C, Phosphofructokinase 1, Phosphohexokinase) |
| **Clonality** | Polyclonal |
| **Isotype** | IgG |
| **Host** | Rabbit |
| **Species Reactivity** | Human |
| **Form/Format** | Supplied as a liquid in PBS, pH 7.2, 0.09% sodium azide. |
| **Purity/Purification** | Affinity Purified<br>Purified by Protein G affinity chromatography. |
| **Specificity** | Human |
| **Preparation and Storage** | May be stored at 4 degree C for short-term only. Aliquot to avoid repeated freezing and thawing. Store at -20 degree C. Aliquots are stable for 12 months. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap. |
| **Molecular Weight** | 85,596 Da |
| **Chromosome Location** | Chromosome: 10; NC_000010.10 (3109667..3178997). Location: 10p15.3-p15.2 |
| **OMIM** | 171840 |
| **3D Structure** | ModBase 3D Structure for Q01813 |
| **Immunogen** | PFKP antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 755~784 amino acids from the C-terminal region of human PFKP. |
| **Product Categories/Family for anti-PFKP antibody** | Antibodies; Abs to Protein Kinases |
| **Applications Tested/Suitable for anti-PFKP antibody** | ELISA (EL/EIA), Western Blot (WB), Immunohistochemistry (IHC) |
| **Application Notes for anti-PFKP antibody** | Suitable for use in Western Blot, Immunohistochemistry, ELISA<br>Dilution: ELISA: 1:1,000<br>Western Blot: 1:100-500<br>Immunohistochemistry: 1:50-100 |

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| **Related Product Information for anti-PFKP antibody** | 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). |
| **Other Notes** | Small volumes of anti-PFKP antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply. |
| **Searchable Terms for PFKP purchase** | MBS6008356 is an antibody targeting PFKP. Also known as PFKP, CT (PFKP, PFKF, 6-phosphofructokinase type C, 6-phosphofructokinase, platelet type, Phosphofructo-1-kinase isozyme C, Phosphofructokinase 1, Phosphohexokinase). Reactive in Human. Host: Rabbit. |




**Western Blot (WB) of anti-PFKP antibody**
Western Blot analysis in T47D cell line lysates (35ug/lane) using MBS6008356. This demonstrates that MBS6008356 detected the PFKP protein (arrow).




**Immunohistochemistry (IHC) of anti-PFKP antibody**
Immunohistochemistry analysis in formalin-fixed and paraffin-embedded human cancer tissue reacted with MBS6008356, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of MBS6008356 for immunohistochemistry. BC = breast carcinoma; HC = hepatocarcinoma.

## ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PFKP. It may not necessarily be applicable to this product.

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|---|---|
| **NCBI GI #** | 71297291 |
| **NCBI GeneID** | 5214 |
| **NCBI Accession #** | AAH43156.1 |
| **UniProt Primary Accession #** | Q01813 |
| **UniProt Secondary Accession #** | Q5VSR7; Q5VSR8; B3KS15 |
| **UniProt Related Accession #** | Q01813 |
| **NCBI Official Full Name** | PFKP protein |
| **NCBI Official Synonym Full Names** | phosphofructokinase, platelet |
| **NCBI Official Symbol** | PFKP |
| **NCBI Official Synonym Symbols** | PFKF; PFK-C |
| **UniProt Protein Name** | 6-phosphofructokinase type C |
| **UniProt Synonym Protein Names** | 6-phosphofructokinase, platelet type; Phosphofructo-1-kinase isozyme C; PFK-C; Phosphofructokinase 1; Phosphohexokinase |

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| **Protein Family** | ATP-dependent 6-phosphofructokinase |
| **UniProt Gene Name** | PFKP |
| **UniProt Synonym Gene Names** | PFKF; PFK-C |
| **UniProt Entry Name** | K6PP_HUMAN |
| **NCBI Protein Information** | 6-phosphofructokinase type C; phosphohexokinase; phosphofructokinase 1; phosphofructo-1-kinase isozyme C; Phosphofructokinase, platelet type; 6-phosphofructokinase, platelet type |
| **NCBI Summary for PFKP** | The PFKP gene encodes the platelet isoform of phosphofructokinase (PFK) (ATP:D-fructose-6-phosphate-1-phosphotransferase, EC 2.7.1.11). PFK catalyzes the irreversible conversion of fructose-6-phosphate to fructose-1,6-bisphosphate and is a key regulatory enzyme in glycolysis. The PFKP gene, which maps to chromosome 10p, is also expressed in fibroblasts. See also the muscle (PFKM; MIM 610681) and liver (PFKL; MIM 171860) isoforms of phosphofructokinase, which map to chromosomes 12q13 and 21q22, respectively. Vora (1981) [PubMed 6451249] determined that full tetrameric phophofructokinase enzyme expressed in platelets can be composed of subunits P4, P3L, and P2L2.[supplied by OMIM, Mar 2008] |
| **UniProt Comments for PFKP** | PFKP: phosphofructokinase, platelet type. An ubiquitous metabolic enzyme involved in the synthesis and degradation of fructose 2,6-bisphosphate. Key control step of glycolysis. An allosteric enzyme activated by ADP, AMP, or fructose bisphosphate and inhibited by ATP or citrate. Activity: ATP D-fructose 6-phosphate = ADP D-fructose 1,6-bisphosphate. The holoenzyme consists of 4 subunits. The liver and muscle enzymes are homo-tetramers of four liver or muscle isoforms, respectively. The red blood cell enzyme consists hetero-tetramers of the muscle and liver isoforms. A subunit composition with a higher proportion of platelet type subunits is found in platelets, brain and fibroblasts.<br><br>Protein type: Carbohydrate Metabolism - glycolysis and gluconeogenesis; Carbohydrate Metabolism - galactose; Carbohydrate Metabolism - fructose and mannose; Kinase, other; Carbohydrate Metabolism - pentose phosphate pathway; EC 2.7.1.11<br><br>Chromosomal Location of Human Ortholog: 10p15.3-p15.2<br><br>Cellular Component: membrane; cytosol; nucleus<br><br>Molecular Function: metal ion binding; protein complex binding; ATP binding; 6-phosphofructokinase activity<br><br>Biological Process: glycolysis; carbohydrate metabolic process; carbohydrate phosphorylation; glucose metabolic process; pathogenesis; fructose 6-phosphate metabolic process |
| **Research Articles on PFKP** | **1.** expression of TARDBP is significantly elevated in HCC and it regulates the expression of PFKP, the rate-limiting enzyme for glycolysis, through negative regulation of microRNA 520s (miR-520s). |
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