Anti-PFKP Antibody HA500472



Product Type:	Rabbit polyclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IHC-P
Molecular Wt:	86 kDa
Description:	Phosphofructokinase, platelet, also known as PFKP is an enzyme which in humans is encoded by the PFKP gene. 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) and liver (PFKL) isoforms of phosphofructokinase, which map to chromosomes 12q13 and 21q22, respectively. Full tetrameric phosphofructokinase enzyme expressed in platelets can be composed of subunits P4, P3L, and P2L2. This gene may play a role in metabolic reprogramming in some cancers, including clear cell renal cell carcinomas, and cancer of the bladder, breast, and lung. Alternative splicing results in multiple transcript variants.
lmmunogen:	Recombinant protein within human PFKP aa 601-784 / 784.
Positive control:	A549 cell lysate, mouse lung tissue lysate, rat lung tissue lysate, human prostate carcinoma tissue, mouse brain tissue.
Subcellular location:	Cytoplasm.
Database links:	SwissProt: Q01813 Human Q9WUA3 Mouse P47860 Rat
Recommended Dilutions: WB IHC-P	1:1,000-1:5,000 1:50-1:200
Storage Buffer:	1*TBS (pH7.4), 0.2% BSA, 50% Glycerol. Preservative: 0.05% Sodium Azide.
Storage Instruction:	Store at +4 $^{\circ}\!\!\!{\rm C}$ after thawing. Aliquot store at -20 $^{\circ}\!\!{\rm C}$. Avoid repeated freeze / thaw cycles.
Purity:	Immunogen affinity purified.

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Orders:0086-571-88062880

Technical:0086-571-89986345

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Applications:WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

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Images









Fig1: Western blot analysis of PFKP on different lysates with Rabbit anti-PFKP antibody (HA500472) at 1/5,000 dilution.

Lane 1: HAP1-parental cell lysate Lane 2: HAP1-PFKP KD cell lysate

Lysates/proteins at 10 µg/Lane.

Predicted band size: 86 kDa Observed band size: 86 kDa

Exposure time: 12 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA500472) at 1/5,000 dilution was used in K1803 at 4° C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

Fig2: Western blot analysis of PFKP on different lysates. Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA500472, 1/5,000) was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:200,000 dilution was used for 1 hour at room temperature.

Positive control: Lane 1: A549 cell lysate Lane 2: Mouse lung tissue lysate Lane 3: Rat lung tissue lysate

Fig3: Immunohistochemical analysis of paraffin-embedded human prostate carcinoma tissue using anti-PFKP antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 30 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (HA500472, 1/100) for 30 minutes at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

Fig4: Immunohistochemical analysis of paraffin-embedded mouse brain tissue using anti-PFKP antibody. The section was pretreated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes.The tissues were blocked in 1% BSA for 30 minutes at room temperature, washed with ddH₂O and

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Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

- 1. Shen J. et. al. PFKP is highly expressed in lung cancer and regulates glucose metabolism. Cell Oncol (Dordr). 2020 Aug
- Lang L. et. al. PFKP Signaling at a Glance: An Emerging Mediator of Cancer Cell Metabolism. Adv Exp Med Biol. 2019

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