Anti-Acid phosphatase/ACP1 Antibody [PSH04-57] HA722156

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Green monkey
Applications:	WB, IHC-P
Molecular Wt:	Predicted band size: 18 kDa
Clone number:	PSH04-57

Description: Low molecular weight phosphotyrosine protein phosphatase is an enzyme that in humans is encoded by the ACP1 gene. The product of this gene belongs to the phosphotyrosine protein phosphatase family of proteins. It functions as an acid phosphatase and a protein tyrosine phosphatase by hydrolyzing protein tyrosine phosphate to protein tyrosine and orthophosphate. This enzyme also hydrolyzes orthophosphoric monoesters to alcohol and orthophosphate. This gene is genetically polymorphic, and three common alleles segregating at the corresponding locus give rise to six phenotypes. Each allele appears to encode at least two electrophoretically different isozymes, Bf and Bs, which are produced in allele-specific ratios. Three transcript variants encoding distinct isoforms have been identified for this gene.

Immunogen: Recombinant protein within human ACP1 aa 1-158 / 158.

Positive control: HepG2 cell lysate, HeLa cell lysate, Jurkat cell lysate, COS-1 cell lysate, human kidney tissue, human stomach tissue, human testis tissue.

Subcellular location: Cytoplasm.

Database links: SwissProt: P24666 Human

Recommended Dilutions:

WB	1:2,000
IHC-P	1:1,000

Storage Buffer: PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.

Purity: Protein A affinity purified.

Images

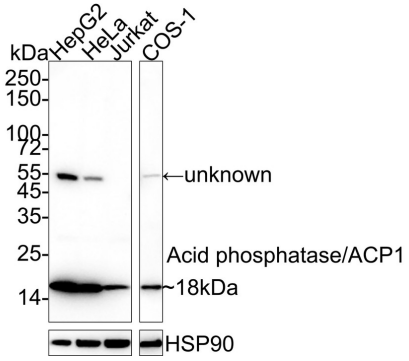

Fig1: Western blot analysis of Acid phosphatase/ACP1 on different lysates with Rabbit anti-Acid phosphatase/ACP1 antibody (HA722156) at 1/2,000 dilution.

Lane 1: HepG2 cell lysate
Lane 2: HeLa cell lysate
Lane 3: Jurkat cell lysate
Lane 4: COS-1 cell lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 18 kDa
Observed band size: 18 kDa

Exposure time: 1 minute 33 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 (HA722156) at 1/2,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

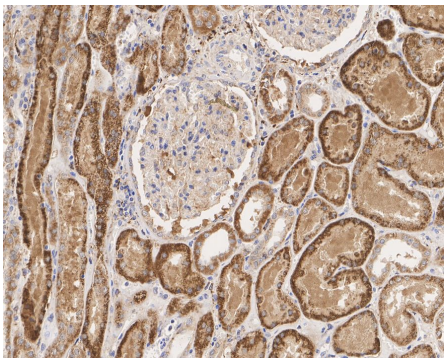

Fig2: Immunohistochemical analysis of paraffin-embedded human kidney tissue with Rabbit anti-Acid phosphatase/ACP1 antibody (HA722156) at 1/1,000 dilution.

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 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA722156) at 1/1,000 dilution for 1 hour 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.

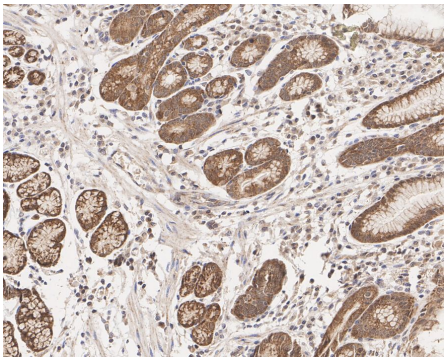

Fig3: Immunohistochemical analysis of paraffin-embedded human stomach tissue with Rabbit anti-Acid phosphatase/ACP1 antibody (HA722156) at 1/1,000 dilution.

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 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA722156) at 1/1,000 dilution for 1 hour 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.

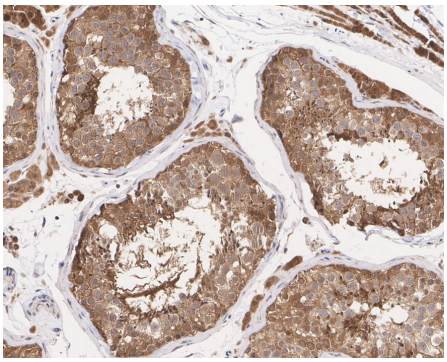

Fig4: Immunohistochemical analysis of paraffin-embedded human testis tissue with Rabbit anti-Acid phosphatase/ACP1 antibody (HA722156) at 1/1,000 dilution.

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 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA722156) at 1/1,000 dilution for 1 hour 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.

Background References

1. Feng B et al. Discovery and biological evaluation of novel dual PTP1B and ACP1 inhibitors for the treatment of insulin resistance. Bioorg Med Chem. 2024 Jan
2. Abdelgalil SA et al. A sustainable and effective bioprocessing approach for improvement of acid phosphatase production and rock phosphate solubilization by Bacillus haynesii strain ACP1. Sci Rep. 2022 May