

DESCRIPTION

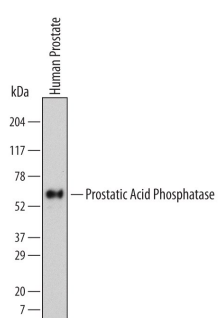
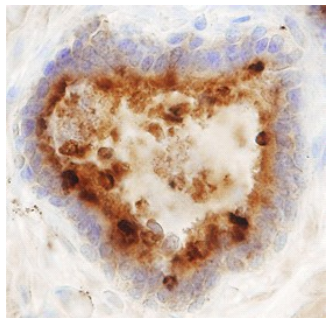
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|---------------------------|---|
| Species Reactivity | Human |
| Specificity | Detects human Prostatic Acid Phosphatase/ACPP in direct ELISAs and Western blots. In Western blots, no cross-reactivity with recombinant human TRACP/PAP/ACP5 is observed. |
| Source | Monoclonal Mouse IgG ₁ Clone # 690017 |
| Purification | Protein A or G purified from hybridoma culture supernatant |
| Immunogen | Mouse myeloma cell line NS0-derived recombinant mouse Prostatic Acid Phosphatase/ACPP Lys33-Ser379 Accession # P15309 |
| Formulation | Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS. |

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

| | Recommended Concentration | Sample |
|-----------------------------|---------------------------|-----------|
| Western Blot | 2 µg/mL | See Below |
| Immunohistochemistry | 8-25 µg/mL | See Below |

DATA

| Western Blot | Immunohistochemistry |
|---|--|
|  <p>Detection of Human Prostatic Acid Phosphatase/ACPP by Western Blot. Western blot shows lysates of human prostate tissue. PVDF Membrane was probed with 2 µg/mL of Human Prostatic Acid Phosphatase/ACPP Monoclonal Antibody (Catalog # MAB6240) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for Prostatic Acid Phosphatase/ACPP at approximately 55 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p> |  <p>Prostatic Acid Phosphatase/ACPP in Human Prostate. Prostatic Acid Phosphatase/ACPP was detected in immersion fixed paraffin-embedded sections of human prostate using Human Prostatic Acid Phosphatase/ACPP Monoclonal Antibody (Catalog # MAB6240) at 15 µg/mL overnight at 4 °C. Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Specific staining was localized to the cytoplasm of epithelial cells. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.</p> |

PREPARATION AND STORAGE

| | |
|--------------------------------|---|
| Reconstitution | Sterile PBS to a final concentration of 0.5 mg/mL. |
| Shipping | The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C |
| Stability & Storage | <p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution. |

BACKGROUND

ACPP (Acid phosphatase, prostate; also PAP and ACP3) is an approximately 50 kDa glycoprotein member of the histidine acid phosphatase family of enzymes. It exists as a 95-100 kDa nondisulfide-linked homodimer that hydrolyzes phosphate esters under low pH to generate free phosphate. ACPP is expressed by prostate epithelium and pain-detecting spinal cord neurons. In the spinal cord, ACPP dephosphorylates AMP. This generates adenosine which acts as a strong analgesic agent. Mature human ACPP is 354 amino acids (aa) in length (aa 33-386). It contains one histidine phosphatase domain (aa 34-332), plus a nucleophile acceptor site at His44, and a proton donor site at Asp290. There are two potential alternative splice variants. One shows a deletion of aa 153-185, while another is transmembrane (previously called TMPase) and shows a 38 aa substitution for the C-terminal seven amino acids. Over aa 33-379, human ACPP shares 84% aa identity with mouse ACPP.