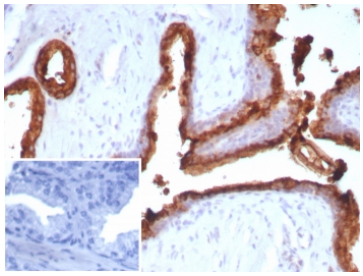
ACP3 Antibody for IHC / Acid phosphatase 3 / PSAP [clone ACPP/2472] (V5001)

Catalog No.	Formulation	Size
V5001-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5001-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5001SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	ACPP/2472
Purity	Protein A/G affinity
UniProt	P15309
Localization	Cytoplasm
Applications	Immunohistochemistry (FFPE) : 0.5-1ug/ml for 30 minutes at RT
Limitations	This ACP3 antibody is available for research use only.



ACP3 Antibody for IHC analysis of Acid phosphatase 3 / Prostatic acid phosphatase in human prostate carcinoma tissue. FFPE human prostate carcinoma tissue was stained with ACP3 Antibody for IHC (mouse monoclonal, clone ACPP/2472) following heat induced epitope retrieval by boiling tissue sections in pH 9 Tris-EDTA buffer (10mM Tris, 1mM EDTA) for 20 minutes and cooling prior to staining. HRP-DAB brown chromogenic signal highlights strong membranous and cytoplasmic staining of prostate tumor epithelial cells forming glandular carcinoma structures, consistent with the known localization of Prostatic acid phosphatase (ACP3 / PAP) in prostate-derived epithelial cells. Detection of ACP3 in prostate carcinoma tissue sections supports its established role as a marker of prostate epithelial differentiation in prostate cancer research. The inset shows the PBS negative control where the primary antibody was omitted, demonstrating absence of specific staining.

Description

Acid phosphatase 3 (ACP3), commonly known as Prostatic acid phosphatase (PAP), is a secreted phosphatase produced predominantly by prostate epithelial cells. The enzyme belongs to the histidine acid phosphatase family and functions as a glycoprotein capable of hydrolyzing phosphate esters under acidic conditions. ACP3 is highly enriched in prostate glandular epithelium and is secreted into seminal fluid, where it contributes to enzymatic activity within the prostate microenvironment. ACP3 Antibody for IHC / Acid phosphatase 3 (clone ACPP/2472) recognizes this prostate-associated enzyme and is designed for research focused on tissue detection of PAP expression.

ACP3 Antibody for IHC is particularly useful for immunohistochemistry analysis of prostate tissue and prostate cancer. In FFPE tissue sections, Acid phosphatase 3 immunohistochemistry typically demonstrates cytoplasmic staining in prostate epithelial cells and prostate tumor cells, reflecting the secretory nature of PAP within glandular epithelial compartments. This staining pattern is frequently used in prostate pathology research to identify prostate-derived epithelial cells and to evaluate differentiation of prostate carcinoma tissues.

Prostatic acid phosphatase has long been recognized as an important biomarker of prostate epithelial differentiation. Prior to the development of prostate-specific antigen testing, PAP served as one of the earliest biochemical markers used in studies of prostate cancer. Although PSA later became more widely used clinically, PAP remains a valuable research marker for prostate epithelial lineage and prostate tumor characterization. In immunohistochemistry studies, detection of ACP3 expression can help distinguish prostate epithelial cells and prostate-derived tumors from other epithelial malignancies.

ACP3 Antibody for IHC (clone ACPP/2472) is a mouse monoclonal antibody developed to recognize Prostatic acid phosphatase in formalin-fixed paraffin-embedded tissues and other histological samples used in laboratory research. Antibodies directed against Acid phosphatase 3 are commonly used to examine prostate glandular differentiation, study prostate cancer tissue architecture, and evaluate expression of prostate-associated proteins in tissue sections.

Because PAP expression is largely restricted to prostate epithelial cells, immunohistochemical detection using ACP3 antibodies provides a reliable approach for studying prostate tissue identity, prostate tumor differentiation, and prostate cancer biology. These features make ACP3 Antibody for IHC a valuable reagent for research involving prostate tissue staining and prostate cancer immunohistochemistry analysis.

Explore our Prostate Specific Acid Phosphatase Antibody / Prostate Cancer Marker Antibody page for additional validation data, prostate carcinoma IHC results, and extensive publication support.

Application Notes

Optimal dilution of the ACP3 Antibody for IHC should be determined by the researcher.

Immunogen

Recombinant full-length human protein was used as the immunogen for the ACP3 Antibody for IHC.

Storage

Aliquot the ACP3 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

Prostatic acid phosphatase antibody, PAP antibody, ACPP antibody, Prostate acid phosphatase antibody, Prostatic acid phosphatase PAP antibody