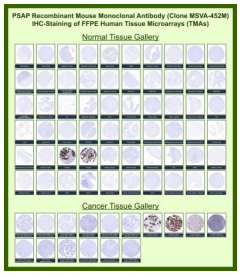
Prostatic Acid Phosphatase Antibody for IHC / ACP3 Antibody [clone MSVA-452M] (V6105)

Catalog No.	Formulation	Size
V6105-100UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V6105-20UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug

Recombinant | MOUSE MONOCLONAL

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG1, kappa
Clone Name	MSVA-452M
UniProt	P15309
Localization	Cell membrane, Cytoplasm, Cytosol, Lysosome membrane, Nucleus, Secreted
Applications	Immunohistochemistry (FFPE) : 1:100-1:200
Limitations	This ACP3/Prostatic acid phosphatase antibody is available for research use only.



Prostatic Acid Phosphatase Antibody for IHC (clone MSVA-452M) tissue microarray (TMA) immunohistochemistry analysis of Prostatic acid phosphatase / ACP3. FFPE human normal and cancer tissue microarrays were stained with the recombinant mouse monoclonal Prostatic Acid Phosphatase Antibody for IHC (clone MSVA-452M). HRP-DAB brown chromogenic signal is observed in prostate glandular epithelial cells and prostate adenocarcinoma, consistent with the known prostate-restricted expression of Prostatic acid phosphatase (PAP/ACP3). Other normal tissues and non-prostate tumor samples show little to no staining. ACP3 immunohistochemistry is commonly used in prostate cancer research to identify prostate epithelial differentiation and evaluate PAP expression in prostate tumors.

Description

Prostatic acid phosphatase (ACP3), also known as PAP, is a secreted phosphatase highly expressed in prostate epithelium and widely used as a biomarker in prostate cancer research and pathology. Prostatic Acid Phosphatase Antibody for IHC (clone MSVA-452M) recognizes this prostate-associated enzyme, which belongs to the histidine acid phosphatase family and participates in phosphomonoester hydrolysis. PAP is predominantly expressed in prostate

epithelial cells and secreted into prostatic fluid, where it contributes to normal prostate physiology and enzymatic activity within the gland.

Prostatic Acid Phosphatase Antibody for IHC enables visualization of PAP protein expression in formalin-fixed paraffin-embedded tissues using immunohistochemistry. In IHC staining, PAP is typically detected in prostate epithelial cells where staining may appear cytoplasmic or luminal due to the secretory nature of the enzyme. This staining pattern reflects the physiological localization of prostatic acid phosphatase in glandular epithelial cells of the prostate and related secretory tissues.

Immunohistochemistry detection of prostatic acid phosphatase has long been used in studies of prostate biology and prostate cancer. PAP expression is strongly associated with prostate epithelial differentiation and is frequently evaluated in prostate carcinoma research. IHC staining using Prostatic Acid Phosphatase Antibody for IHC allows researchers to identify PAP-positive prostate epithelial cells and examine expression patterns in prostate tumors and metastatic lesions.

Prostatic acid phosphatase was historically used as one of the earliest biomarkers for prostate cancer prior to the introduction of PSA testing, and it continues to serve as a valuable marker of prostate epithelial differentiation. PAP expression can be observed in prostate glandular epithelium and prostate carcinoma cells, supporting studies of tumor differentiation and prostate tissue biology.

Prostatic Acid Phosphatase Antibody for IHC provides a research tool for detecting PAP expression in prostate tissues and prostate cancer models. Immunohistochemistry staining of ACP3 enables investigators to examine prostate epithelial differentiation, evaluate tumor cell phenotype in prostate carcinoma, and study the biological role of ACP3 in prostate tissue physiology and prostate cancer progression.

This ACP3 antibody is also part of a broader collection of IHC antibodies validated by tissue microarray analysis, supporting consistent staining across normal and cancer tissues.

Application Notes

1. Optimal dilution of the Prostatic Acid Phosphatase Antibody for IHC should be determined by the researcher.

2. This ACP3/Prostatic acid phosphatase antibody is recombinantly produced by expression in CHO cells.

3. Manual Protocol: Freshly cut sections should be used (less than 10 days between cutting and staining). Heat-induced antigen retrieval for 5 minutes in an autoclave at 121oC in pH 7.8 Target Retrieval Solution buffer. Apply the antibody at a dilution of 1:150 at 37oC for 60 minutes. Visualization of bound antibody by the EnVision Kit (Dako, Agilent) according to the manufacturer's directions.

Immunogen

Recombinant full-length human ACPP3/PAP protein was used as the immunogen for the Prostatic Acid Phosphatase Antibody for IHC.

Storage

Prostatic Acid Phosphatase Antibody for IHC with sodium azide - store at 2 to 8oC; antibody without sodium azide - store at -20 to -80oC.

Alternate Names

ACP3 antibody, PAP antibody, Prostatic acid phosphatase antibody, Prostatic acid phosphatase PAP antibody, Prostate acid phosphatase antibody