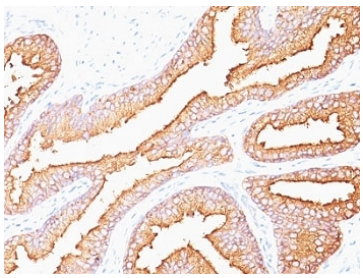
PSA Antibody / Prostate Specific Antigen [clone SPM352] (V9033)

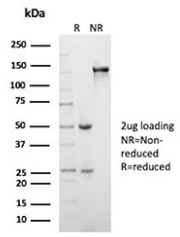
Catalog No.	Formulation	Size
V9033-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V9033-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V9033SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V9033IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

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	SPM352
Purity	Protein G affinity chromatography
UniProt	P07288
Localization	Cytoplasmic
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
Limitations	This PSA antibody is available for research use only.



Immunohistochemistry of PSA / Prostate Specific Antigen in human prostate carcinoma. Formalin-fixed, paraffin-embedded human prostate carcinoma tissue stained with PSA antibody (clone SPM352) demonstrates prominent staining of prostate tumor epithelial cells lining irregular glandular lumina, with signal localized predominantly to the cytoplasm and luminal borders, while surrounding stromal elements remain largely unstained. Antigen retrieval was performed by boiling tissue sections in 10 mM Tris with 1 mM EDTA, pH 9.0, for 10-20 minutes, followed by cooling at room temperature for 20 minutes.



SDS-PAGE analysis of purified, BSA-free recombinant PSA/Prostate Specific Antigen antibody (clone SPM352) as confirmation of integrity and purity.

Description

PSA Antibody (Prostate Specific Antigen) recognizes Kallikrein related peptidase 3, a secreted serine protease produced predominantly by luminal epithelial cells of the prostate gland. Prostate specific antigen belongs to the tissue kallikrein family and is synthesized as an inactive precursor that undergoes proteolytic processing before secretion. Once released, PSA participates in protease-mediated remodeling of seminal plasma proteins, supporting normal reproductive physiology and reflecting its highly regulated expression in prostate tissue.

In normal prostate epithelium, PSA expression is tightly controlled by androgen receptor signaling and is largely restricted to secretory epithelial cells lining prostatic glands. At the cellular level, the protein is associated with the cytoplasmic and secretory compartments, with extracellular accumulation reflecting its function as a secreted enzyme. Because of this lineage-restricted expression pattern, immunohistochemical detection using a PSA antibody is widely used to identify prostate epithelial differentiation in tissue sections.

Kallikrein related peptidase 3, often referred to by its gene symbol KLK3, has been extensively studied in the context of prostate cancer biology. Changes in PSA expression, secretion, and tissue localization accompany malignant transformation and tumor progression, although expression may be retained in many prostate carcinomas. For this reason, PSA remains a key tissue marker for confirming prostatic origin in primary tumors and metastatic lesions, particularly in research pathology and tumor classification studies.

Beyond its established role as a biomarker, PSA has been investigated for potential involvement in extracellular matrix processing, growth factor regulation, and interactions within the prostate tumor microenvironment. These studies have expanded the biological relevance of PSA beyond serum-based detection, supporting its continued use as a tissue-based marker in immunohistochemical and histological analyses. Prostate Specific Antigen antibodies are therefore routinely included in marker panels designed to assess prostate lineage and differentiation status.

PSA Antibody / Prostate Specific Antigen (clone SPM352) is designed to detect PSA in research applications. In formalin-fixed, paraffin-embedded prostate tissue, staining is typically observed in epithelial cells with a cytoplasmic and luminal distribution consistent with the secretory nature of the protein. Appropriate antigen retrieval conditions are important for optimal visualization in fixed specimens. Overall, KLK3 remains one of the most informative and widely used markers for prostate epithelial identity in urogenital research.

Application Notes

The optimal dilution of the PSA antibody for each application should be determined by the researcher.

1. Staining of formalin-fixed tissues requires boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min followed by cooling at RT for 20 minutes.
2. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

Prostate specific antigen from human sperm plasma was used as the immunogen for this PSA antibody.

Storage

Store the PSA antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).