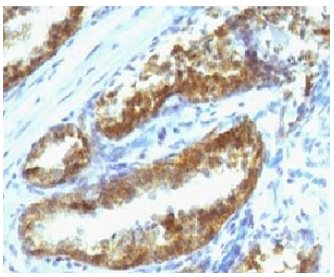
Prostate Specific Antigen Antibody PSAK3-1 / PSA KLK3 Antibody [clone PSAK3-1] (V7014)

Catalog No.	Formulation	Size
V7014-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7014-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7014SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V7014IHC-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	PSAK3-1
Purity	Protein G affinity chromatography
UniProt	P07288
Localization	Cytoplasmic
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT Prediluted IHC only format: incubate for 30 min at RT (1)
Limitations	This Prostate Specific Antigen Antibody PSAK3-1 is available for research use only.



Prostate Specific Antigen Antibody PSAK3-1 IHC staining of human prostate carcinoma. Immunohistochemistry analysis of FFPE human prostate carcinoma tissue using Prostate Specific Antigen Antibody Mouse Monoclonal PSAK3-1 demonstrates HRP-DAB brown cytoplasmic staining in malignant prostate epithelial cells forming glandular tumor structures, consistent with Prostate specific antigen (KLK3) expression in prostate-derived carcinoma cells, while surrounding stromal cells remain largely negative. HIER: tissue sections were boiled in pH 9 10mM Tris with 1mM EDTA for 10-20 minutes followed by cooling at room temperature for 20 minutes before testing.

Description

Prostate specific antigen (KLK3) is a secreted serine protease encoded by the KLK3 gene and produced predominantly by luminal epithelial cells of the prostate gland. The protein is widely referred to as Prostate specific antigen or PSA and belongs to the kallikrein related peptidase family of serine proteases. Prostate Specific Antigen Antibody PSAK3-1 recognizes the KLK3 protein and enables detection of PSA expression in studies investigating prostate epithelial biology and prostate cancer.

PSA is synthesized as a precursor protease that undergoes signal peptide removal and enzymatic activation during secretion. Mature PSA is released into the lumen of prostatic ducts and acini where it functions as a protease in seminal plasma. The enzyme cleaves semenogelin proteins and related substrates, facilitating liquefaction of the seminal coagulum after ejaculation and contributing to normal reproductive physiology.

In normal prostate tissue, KLK3 expression is largely restricted to luminal epithelial cells lining prostatic glands. The protein is typically localized within the cytoplasm and luminal secretions of glandular epithelial cells, reflecting active synthesis and secretion of PSA by prostate epithelium. Because of this highly restricted cellular distribution, PSA has become one of the most widely studied markers of prostate epithelial differentiation.

PSA expression is frequently retained in prostate adenocarcinoma and metastatic tumors derived from prostate tissue. Detection of Prostate specific antigen therefore provides important biological insight when examining prostate tumor differentiation, tumor origin, and the lineage identity of prostate-derived malignancies. Studies evaluating PSA expression patterns contribute to a better understanding of prostate cancer biology and tumor progression.

Prostate Specific Antigen Antibody Mouse Monoclonal PSAK3-1 provides a reagent for detecting KLK3 protein in studies of prostate tissue biology and prostate cancer models. Monoclonal antibodies recognize a defined epitope within the target antigen, enabling consistent recognition of PSA while supporting investigation of KLK3 protein expression in molecular and cellular research systems.

For a complementary recombinant clone with broader application validation, see our Prostate Specific Antigen Antibody RM323 / KLK3 Antibody page.

Application Notes

Optimal dilution of the Prostate Specific Antigen Antibody PSAK3-1 should be determined by the researcher.

1. 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

Recombinant full-length human PSA protein was used as the immunogen for the Prostate Specific Antigen Antibody PSAK3-1.

Storage

Store the Prostate Specific Antigen Antibody PSAK3-1 at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

PSA antibody, KLK3 antibody, Prostate specific antigen antibody, Kallikrein related peptidase 3 antibody

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