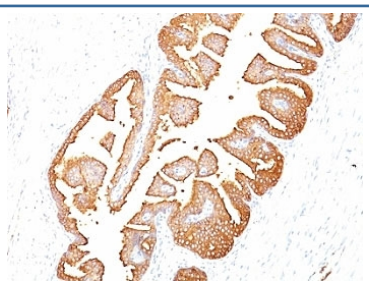
PSA Antibody / Prostate Specific Antigen [clone KLK3/801] (V2368)

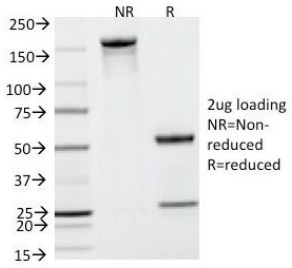
Catalog No.	Formulation	Size
V2368-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2368-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2368SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2368IHC-7ML	Prediluted 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

Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	KLK3/801
Purity	Protein G purified
Buffer	1X PBS, pH 7.4
Gene ID	354
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/Prostate Specific Antigen antibody (clone KLK3/801) shows strong cytoplasmic and luminal staining in malignant prostate epithelial cells forming glandular structures, with minimal staining in surrounding stromal cells. Antigen retrieval was performed by boiling tissue sections in 10 mM citrate buffer, pH 6.0, for 10-20 minutes, followed by cooling at room temperature for 20 minutes.



SDS-PAGE Analysis of Purified, BSA-Free PSA Antibody (KLK3/801). Confirmation of Integrity and Purity of the Antibody.

Description

PSA/Prostate Specific Antigen antibody recognizes Kallikrein related peptidase 3, a secreted serine protease best known under the clinical name Prostate specific antigen. PSA is a member of the tissue kallikrein family of trypsin-like proteases and is produced predominantly by epithelial cells of the prostate gland. The protein is synthesized as a preproenzyme, undergoes signal peptide removal and activation, and is secreted into seminal fluid, where it contributes to proteolytic processing of seminal coagulum proteins and regulation of semen viscosity.

Prostate specific antigen is one of the most extensively studied prostate-derived proteins and has become a central biomarker in prostate biology and disease research. In normal prostate tissue, PSA expression is largely confined to luminal epithelial cells and is regulated by androgen receptor signaling. The protein localizes primarily to the cytoplasm and secretory pathway of prostate epithelial cells, with extracellular presence reflecting its role as a secreted protease. Immunohistochemical detection using a PSA antibody is therefore widely applied to identify prostate epithelial differentiation in tissue sections.

Kallikrein related peptidase 3, commonly referred to as KLK3 in gene-centric contexts, plays an important role in prostate tissue homeostasis and androgen-responsive signaling pathways. Altered expression, secretion, or localization of KLK3 has been closely associated with prostate cancer biology. Although PSA is not exclusively cancer-specific, its expression pattern and abundance in prostate-derived tissues make it a valuable marker for studying prostate development, tumor differentiation, and metastatic origin in research pathology settings.

Beyond its diagnostic relevance, PSA has been investigated for its involvement in extracellular matrix remodeling, growth factor activation, and cell signaling within the prostate microenvironment. These functional associations have expanded interest in PSA beyond serum-based assays, supporting its continued use as a tissue marker in immunohistochemistry and related applications. As a result, Prostate Specific Antigen antibodies are routinely employed to assess prostate lineage in primary tumors and metastatic lesions of unknown origin.

PSA Antibody / Prostate Specific Antigen (clone KLK3/801) is designed to detect PSA in research applications. In formalin-fixed, paraffin-embedded tissue sections, staining is typically observed in prostate epithelial cells with a cytoplasmic and luminal pattern 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 established and informative markers for prostate epithelial differentiation, supporting its widespread use in prostate cancer and urogenital research.

Application Notes

Variations in protocols, secondaries and substrates may require the PSA antibody to be titered up or down for optimal performance.

1. Staining of formalin-fixed tissues requires boiling tissue sections in 10mM Citrate buffer, pH 6.0, 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

Full length human recombinant protein 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).

Alternate Names

PSA

References (1)