PSA Antibody Clone A67-B/E3 / Prostate Specific Antigen KLK3 Antibody [clone A67-B/E3] (V2003)

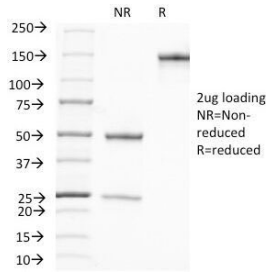
Catalog No.	Formulation	Size
V2003-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2003-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2003SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2003IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

Citations (31)

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	A67-B/E3
Purity	Protein G affinity chromatography
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.

PSA Antibody Clone A67-B/E3 IHC staining of human prostate carcinoma. Immunohistochemistry analysis of FFPE human prostate carcinoma tissue using PSA Antibody Clone A67-B/E3 shows strong 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.



SDS-PAGE Analysis of Purified, BSA-Free PSA Antibody (clone A67-B/E3). Confirmation of Integrity and Purity of the Antibody.

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 known as Prostate specific antigen or PSA and belongs to the kallikrein related peptidase family of serine proteases. PSA Antibody Clone A67-B/E3 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 from prostate epithelial cells. The mature enzyme is released into the lumen of prostatic glands where it functions in seminal plasma. PSA cleaves semenogelin proteins and other seminal substrates, facilitating liquefaction of seminal coagulum following ejaculation and supporting sperm motility.

In normal prostate tissue, KLK3 expression is largely restricted to luminal epithelial cells lining prostatic ducts and acini. PSA protein is typically localized to the cytoplasm and glandular luminal secretions of these epithelial cells, reflecting active synthesis and secretion by prostate epithelium. This restricted cellular distribution has made PSA one of the most widely studied markers of prostate epithelial differentiation in biological and cancer research studies.

PSA expression is commonly retained in prostate adenocarcinoma and in 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. Analysis of PSA expression patterns contributes to research examining prostate cancer progression and prostate epithelial cell biology.

PSA Antibody Clone A67-B/E3 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 antigen recognition and supporting investigation of PSA expression in molecular and cellular research systems.

Application Notes

The concentration stated for each application is a general starting point. Variations in protocols, secondaries and substrates may require the PSA Antibody Clone A67-B/E3 to be titered up or down for optimal performance.

1. Staining of formalin-fixed tissues requires boiling tissue sections in 1mM EDTA Buffer, pH 7.5-8.5, 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 antigen 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

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

References (1)