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

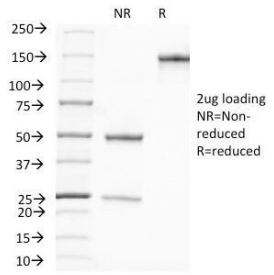
Catalog No.	Formulation	Size
V2003-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2003-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2003SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2003IHC-7ML	Prediluted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

IHC testing of human prostate carcinoma stained with PSA antibody.



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

Description

PSA antibody (clone A67-B/E3) detects Prostate Specific Antigen (PSA), a serine protease secreted by prostatic epithelial cells and encoded by the KLK3 gene. The UniProt recommended name is Prostate-specific antigen (PSA). PSA is a member of the kallikrein-related peptidase family and functions as a chymotrypsin-like enzyme involved in the liquefaction of seminal coagulum. It is one of the most abundant proteins in seminal plasma and serves as a widely used biomarker for prostate physiology and disease, particularly prostate carcinoma.

The KLK3 gene is located on chromosome 19q13.33 within the kallikrein gene cluster. The protein is synthesized as a 261-amino-acid preproenzyme that undergoes removal of a signal peptide and activation by proteolytic cleavage to yield the mature 237-amino-acid enzyme. PSA is secreted into the seminal fluid by the epithelial cells of the prostatic acini and ducts, where it participates in proteolysis of semenogelins and fibronectin. A small fraction of PSA diffuses into the bloodstream, where it circulates in both free and complexed forms. Serum PSA concentration increases in conditions such as benign prostatic hyperplasia, inflammation, and malignancy, making it a clinically important diagnostic marker.

At the cellular level, PSA is localized in the cytoplasm and secretory granules of prostatic epithelial cells. Its expression is under androgen regulation through androgen receptor-mediated transcriptional control. Because PSA synthesis depends on androgen signaling, its measurement is also used to monitor androgen-deprivation therapy and disease progression in prostate cancer. Beyond its diagnostic relevance, PSA has been studied for its potential biological roles in tumor microenvironment remodeling, cell migration, and angiogenesis, reflecting its enzymatic ability to modify extracellular matrix components.

Clone A67-B/E3 is a monoclonal antibody developed for specific detection of PSA in human tissue and biological samples. It recognizes PSA protein in both secreted and intracellular forms, providing clear labeling of prostatic epithelial cells and prostate-derived tumors. The antibody offers strong specificity for PSA and is suitable for distinguishing prostate carcinoma from other malignancies in research settings. Its high sensitivity allows reliable detection in tissue sections, cell lysates, or immunoassay platforms designed for experimental studies of prostate biology and biomarker validation.

PSA antibody (clone A67-B/E3) supports research into prostatic differentiation, kallikrein family function, and tumor marker evaluation. It can be applied to investigate PSA expression patterns in normal and neoplastic prostate tissue, contributing to understanding of disease mechanisms and hormone-responsive gene regulation. NSJ Bioreagents provides PSA antibody (clone A67-B/E3) validated for use in relevant research applications supporting studies in prostate biology, oncology, and biomarker discovery.

Application Notes

The concentration stated for each application is a general starting point. 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 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).

References (1)