

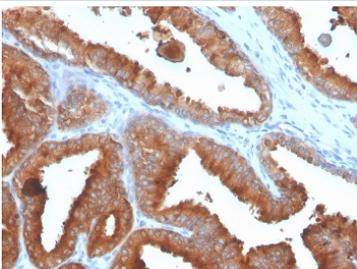
Recombinant Prostate Specific Antigen Antibody / PSA KLK3 Antibody [clone rKLK3/4753] (V8699)

Catalog No.	Formulation	Size
V8699-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V8699-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V8699SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

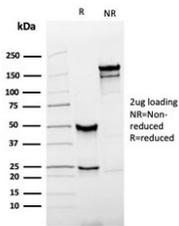
Recombinant **MOUSE MONOCLONAL**

[Bulk quote request](#)

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG2a, kappa
Clone Name	rKLK3/4753
Purity	Protein G affinity chromatography
UniProt	P07288
Localization	Cytoplasmic
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 minutes at RT
Limitations	This recombinant Prostate Specific Antigen antibody is available for research use only.



Recombinant Prostate Specific Antigen Antibody (clone rKLK3/4753) immunohistochemistry analysis of human prostate carcinoma. Formalin-fixed paraffin-embedded human prostate carcinoma tissue stained with Recombinant Prostate Specific Antigen Antibody clone rKLK3/4753 shows HRP-DAB brown chromogenic staining in malignant glandular epithelial cells. Strong cytoplasmic staining highlights tumor cells forming irregular glandular structures, with luminal accentuation consistent with secretion of Prostate specific antigen (KLK3). Surrounding stromal tissue remains largely negative. Heat induced epitope retrieval was performed by boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 minutes followed by cooling prior to antibody incubation.



SDS-PAGE analysis of purified, BSA-free recombinant Prostate Specific Antigen antibody (clone rKLK3/4753) as confirmation of integrity and purity.

Description

Prostate specific antigen (PSA), encoded by the KLK3 gene, is a glandular serine protease produced predominantly by secretory epithelial cells of the prostate. KLK3 belongs to the kallikrein related peptidase family, a group of closely related proteases involved in extracellular protein processing. Recombinant Prostate Specific Antigen Antibody (clone rKLK3/4753) recognizes the PSA protein and enables detection of KLK3 expression in prostate derived tissues and tumors in studies investigating prostate epithelial differentiation and prostate cancer biology.

PSA plays an important physiological role in male reproductive biology. The protein is synthesized as a preproenzyme in prostate epithelial cells and undergoes several processing steps during secretion. After removal of the signal peptide and activation of the enzyme, PSA is released into the seminal fluid where it cleaves semenogelins and related structural proteins. This enzymatic activity contributes to the liquefaction of seminal coagulum and helps maintain sperm motility following ejaculation.

Within the prostate gland, PSA production is largely confined to luminal epithelial cells that line prostatic acini and ducts. The protein accumulates in the cytoplasm of these secretory cells and is released into the glandular lumen. Because KLK3 expression is tightly restricted to prostate epithelial tissue, PSA has become one of the most characteristic molecular markers associated with prostate gland biology.

In prostate malignancies, PSA expression is commonly maintained in tumor epithelial cells, particularly in prostate adenocarcinoma. Detection of PSA can therefore support research investigating the cellular origin of tumors and the differentiation status of prostate cancer cells. Studies examining PSA expression patterns also contribute to understanding the relationship between prostate epithelial function and tumor development.

A recombinant monoclonal Prostate Specific Antigen antibody such as clone rKLK3/4753 provides a reagent for detecting KLK3 in research applications involving prostate tissue analysis and prostate cancer studies. Detection typically reveals cytoplasmic localization of PSA in prostate epithelial cells and prostate tumor cells consistent with the secretory biology of the PSA protein.

Application Notes

Optimal dilution of the Recombinant Prostate Specific Antigen Antibody clone rKLK3/4753 should be determined by the researcher.

Immunogen

Recombinant full-length human KLK3/PSA protein was used as the immunogen for the recombinant Prostate Specific Antigen antibody.

Storage

Store the recombinant Prostate Specific Antigen antibody at 2-8°C (with azide) or aliquot and store at -20°C or colder (without azide).

Alternate Names

PSA antibody, KLK3 antibody, Kallikrein related peptidase 3 antibody, Human prostate specific antigen antibody