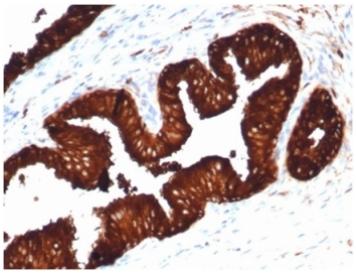
PSA Antibody KLK3/4602R / Kallikrein 3 Antibody [clone KLK3/4602R] (V9540)

Catalog No.	Formulation	Size
V9540-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V9540-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V9540SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

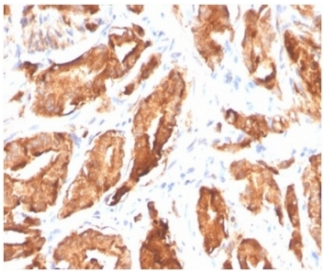
Recombinant RABBIT MONOCLONAL

Bulk quote request

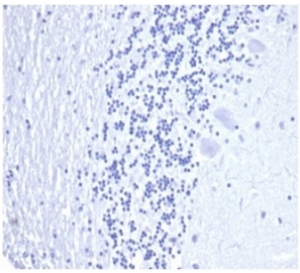
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	KLK3/4602R
Purity	Protein A/G affinity
UniProt	P07288
Localization	Secreted
Applications	Immunohistochemistry (FFPE): 1-2ug/ml
Limitations	This PSA Antibody KLK3/4602R / Kallikrein 3 Antibody is available for research use only.



PSA Antibody KLK3/4602R in Gland-Forming Human Prostate Carcinoma IHC. Immunohistochemistry of FFPE human prostate carcinoma tissue using PSA Antibody (clone KLK3/4602R) demonstrates strong, predominantly cytoplasmic staining of malignant glandular epithelial cells, with surrounding stromal tissue largely negative. Tissue sections underwent HIER by boiling in pH 9 10mM Tris with 1mM EDTA for 20 min followed by cooling before testing. The intense epithelial staining and comparatively clean stromal background demonstrate selective detection of prostate specific antigen by this Kallikrein 3 Antibody.



PSA Antibody KLK3/4602R in Human Prostate Carcinoma IHC. Immunohistochemistry of FFPE human prostate carcinoma tissue using PSA Antibody (clone KLK3/4602R) shows strong cytoplasmic staining throughout malignant prostate epithelial cells forming irregular glandular structures, while the intervening stromal tissue displays little staining. HIER was performed by boiling sections in pH 9 10mM Tris with 1mM EDTA for 20 min followed by cooling before testing. The widespread tumor-cell staining demonstrates recognition of prostate specific antigen by this Kallikrein 3 Antibody in a second prostate carcinoma specimen.



PSA Antibody KLK3/4602R Negative Control in Human Brain IHC. Immunohistochemistry of FFPE human brain tissue using PSA Antibody (clone KLK3/4602R) at 2 ug/ml shows essentially no specific brown staining, with the brain parenchyma and densely cellular region remaining predominantly counterstained blue. Sections underwent HIER by boiling in pH 9 10mM Tris with 1mM EDTA for 20 min followed by cooling, followed by antibody incubation for 30 min at room temperature. This negative tissue control supports the specificity of the Kallikrein 3 Antibody staining observed in prostate carcinoma.

Description

PSA Antibody KLK3/4602R recognizes prostate specific antigen (PSA), a secreted serine protease encoded by the KLK3 gene. KLK3 belongs to the kallikrein related peptidase family and is produced predominantly by luminal epithelial cells of the prostate gland. PSA is synthesized as a preproenzyme containing a signal peptide and propeptide that are removed during maturation and secretion.

Mature PSA functions as a serine protease in seminal plasma, where it cleaves semenogelins and other proteins involved in formation of the seminal coagulum. This proteolytic activity contributes to liquefaction following ejaculation. PSA is glycosylated and can exist in free form or in complexes with endogenous protease inhibitors. Its expression and secretion are strongly influenced by androgen receptor signaling and the differentiated state of prostate epithelial cells.

KLK3 has been extensively investigated as a marker of prostate epithelial differentiation. PSA expression is commonly retained in prostate adenocarcinoma and can also be detected in tumors derived from prostate tissue, making KLK3 useful for research into prostate cancer biology, cellular lineage, tumor differentiation, and androgen-regulated gene expression. Its relatively restricted expression has also made the protein an important model for studying prostate-specific transcriptional regulation and secretory epithelial biology.

Clone KLK3/4602R is a recombinant rabbit monoclonal antibody generated against a region within amino acids 150-250 of prostate specific antigen. This defined monoclonal reagent provides researchers with a tool for investigating PSA/KLK3 protein expression. The Kallikrein 3 Antibody terminology reflects the protein's membership in the kallikrein serine protease family and provides an alternative designation for researchers studying KLK3 biology. NSJ Bioreagents supplies KLK3/4602R for research use only.

A PSA Antibody can be used to investigate KLK3 expression, prostate epithelial differentiation, androgen-regulated protein biology, and molecular processes associated with prostate cancer research.

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 PSA Antibody KLK3/4602R / Kallikrein 3 Antibody should be determined by the researcher.

Immunogen

A portion of amino acids 150-250 of Prostate-specific antigen protein was used as the immunogen for the recombinant PSA Antibody KLK3/4602R.

Storage

Aliquot the PSA Antibody KLK3/4602R and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

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

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