

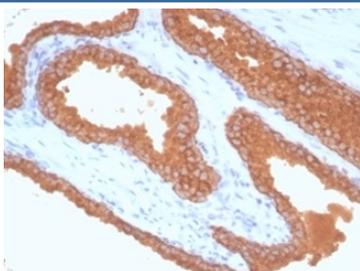
Recombinant Prostate Specific Antigen Antibody KLK3/7128R / PSA KLK3 Antibody [clone KLK3/7128R] (V9652)

Catalog No.	Formulation	Size
V9652-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V9652-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V9652SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

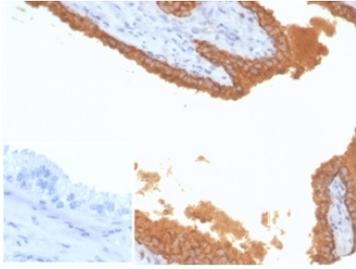
Recombinant **RABBIT MONOCLONAL**

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Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	KLK3/7128R
Purity	Protein A/G affinity
UniProt	P07288
Localization	Secreted
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml
Limitations	This Prostate Specific Antigen antibody is available for research use only.



Recombinant Prostate Specific Antigen Antibody KLK3/7128R IHC staining of human prostate carcinoma. Immunohistochemistry analysis of FFPE human prostate carcinoma tissue using Recombinant Prostate Specific Antigen Antibody KLK3/7128R 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. HIER: tissue sections were boiled in pH 9 10mM Tris with 1mM EDTA for 20 minutes and allowed to cool before testing.



IHC staining of FFPE human prostate carcinoma tissue with recombinant Prostate Specific Antigen antibody (clone KLK3/7128R) at 2ug/ml. Negative control inset: PBS instead of primary antibody to control for secondary binding. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.

Description

Prostate specific antigen (KLK3) is a secreted serine protease encoded by the KLK3 gene and produced primarily by luminal epithelial cells of the prostate gland. The protein is widely known as Prostate specific antigen or PSA and is a member of the kallikrein related peptidase family of serine proteases. Recombinant Prostate Specific Antigen Antibody KLK3/7128R recognizes the KLK3 protein and enables detection of PSA expression in studies focused on prostate epithelial biology and prostate cancer.

PSA is synthesized as a precursor enzyme that contains a signal peptide and propeptide sequence that are removed during secretion and activation. The mature enzyme functions in seminal plasma where it cleaves semenogelins and other seminal proteins, promoting liquefaction of seminal coagulum following ejaculation. Because of this specialized physiological role, PSA expression is largely restricted to prostate epithelial cells under normal biological conditions.

Within prostate tissue, KLK3 protein is typically localized to luminal epithelial cells that line prostatic glands and ducts. These cells actively synthesize and secrete PSA into glandular lumina, reflecting the functional role of the prostate in seminal fluid production. The restricted cellular distribution of PSA has made it one of the most widely studied markers of prostate epithelial differentiation.

PSA expression is commonly retained in prostate adenocarcinoma and in metastatic tumors originating from the prostate. Detection of KLK3 expression is therefore frequently used in studies examining prostate tumor biology, epithelial differentiation, and the lineage origin of prostate derived malignancies. Analysis of PSA expression patterns provides insight into prostate tumor progression and the biological behavior of prostate cancer cells.

Recombinant Prostate Specific Antigen Antibody KLK3/7128R provides a reagent for detecting KLK3 protein in studies of prostate tissue biology and prostate cancer models. Recombinant monoclonal antibodies recognize a defined epitope within the target protein, allowing consistent recognition of PSA while supporting investigation of KLK3 protein expression in molecular and cellular research systems.

Application Notes

Optimal dilution of the Recombinant Prostate Specific Antigen Antibody KLK3/7128R should be determined by the researcher.

Immunogen

A portion of amino acids 150-250 was used as the immunogen for the recombinant Prostate Specific Antigen antibody.

Storage

Aliquot the recombinant Prostate Specific Antigen antibody 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

