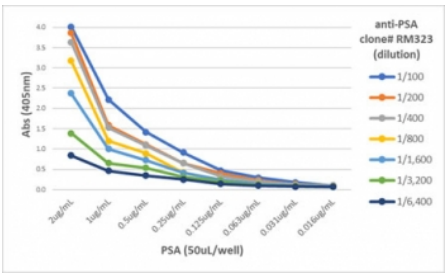
Prostate Specific Antigen Antibody Biotin Conjugate / PSA KLK3 Biotinylated Antibody [clone RM323] (R20347BTN)

Catalog No.	Formulation	Size
R20347BTN-0.05ML	Antibody in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	50 ul

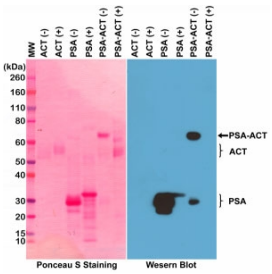
Recombinant RABBIT MONOCLONAL

Bulk quote request

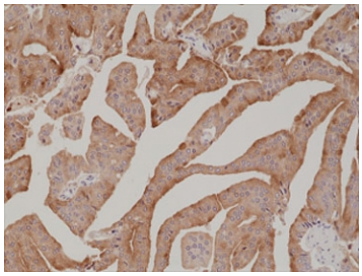
Availability	1-3 business days
Species Reactivity	Human
Format	Biotin Conjugate
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	RM323
Purity	Protein A purified from animal origin-free supernatant
UniProt	P07288
Applications	Immunohistochemistry (FFPE) : 1:500-1:1000 Western Blot (Non-reduced) : 1:1000-1:2500 ELISA : 1:100-1:5000
Limitations	This biotinylated Prostate Specific Antigen antibody is available for research use only.



Prostate Specific Antigen Antibody Biotin Conjugate ELISA titration analysis of PSA. A titer ELISA was performed using purified PSA derived from human seminal fluid. Microplates were coated with decreasing amounts of PSA (50 uL per well), followed by incubation with serial dilutions of Prostate Specific Antigen Antibody Biotin Conjugate (clone RM323). An alkaline phosphatase conjugated anti-rabbit IgG was used as the secondary antibody for signal detection. The antibody shows strong concentration dependent binding to PSA, demonstrating sensitive detection across multiple antibody dilutions in the ELISA assay.



Prostate Specific Antigen Antibody Biotin Conjugate WB. Western blot analysis of purified human PSA, alpha 1-antichymotrypsin (ACT), and PSA-ACT complex under non-reduced and reduced conditions using biotinylated recombinant Prostate Specific Antigen antibody demonstrates strong detection of free PSA near 28-34 kDa and PSA-ACT complex near 90-100 kDa, consistent with the established biochemical association between KLK3 / PSA and alpha 1-antichymotrypsin in seminal and plasma-derived samples. The observed reduction-sensitive migration patterns support selective recognition of both free and complexed PSA species by the biotin-conjugated recombinant antibody.



Prostate Specific Antigen Antibody Biotin Conjugate Prostate Cancer IHC. Immunohistochemistry staining of FFPE human prostate cancer tissue with recombinant Prostate Specific Antigen antibody at 1:1000.

Description

Prostate specific antigen (PSA), encoded by the KLK3 gene, is a secreted serine protease produced primarily by luminal epithelial cells of the prostate gland. PSA belongs to the kallikrein related peptidase family and functions in the proteolytic processing of seminal fluid proteins. Prostate Specific Antigen Antibody Biotin Conjugate enables sensitive detection of PSA in immunoassay systems that use biotin-streptavidin signal amplification, supporting studies examining prostate derived proteins and prostate cancer biomarkers.

Biotin conjugated antibodies are widely used in immunoassay workflows because biotin binds with extremely high affinity to streptavidin or avidin proteins. In ELISA and related immunodetection methods, a biotinylated antibody can function as a detection reagent that binds the target antigen while streptavidin conjugated enzymes or fluorophores generate the measurable signal. This amplification strategy allows highly sensitive detection of proteins present at low concentrations in biological samples.

PSA is secreted by prostate epithelial cells and is present in seminal plasma and at lower concentrations in blood and other biological fluids. Immunoassay detection of PSA is therefore commonly performed using sandwich ELISA formats in which one antibody captures PSA from the sample and a second antibody, such as a biotin conjugated PSA antibody, is used for detection. Following binding of the detection antibody, streptavidin conjugated enzymes such as alkaline phosphatase or horseradish peroxidase can be applied to generate a quantifiable signal.

Because PSA is highly specific to prostate epithelial tissue, detection of KLK3 protein is widely used in research examining prostate cancer biology, prostate epithelial differentiation, and secretion of prostate derived proteins. Immunoassay based measurement of PSA levels can also support studies investigating prostate tumor progression and prostate cell biology.

A recombinant rabbit monoclonal Prostate Specific Antigen Antibody Biotin Conjugate such as clone RM323 provides a convenient reagent for immunoassay detection of PSA. The antibody binds KLK3 protein while the biotin label enables interaction with streptavidin-based detection systems, supporting sensitive measurement of PSA in ELISA and other biotin dependent assay formats.

Explore additional Cancer Antibodies targeting prostate carcinoma biomarkers, kallikrein family proteases, and tumor-associated secreted proteins.

Application Notes

The stated application concentrations are suggested starting points. Titration of the recombinant Prostate Specific Antigen Antibody Biotin Conjugate may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

Native PSA protein purified from human seminal fluid was used as the immunogen for the recombinant biotinylated Prostate Specific Antigen antibody.

Storage

Store the biotinylated Prostate Specific Antigen antibody at -20oC.

Alternate Names

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