

PRODUCT INFORMATION

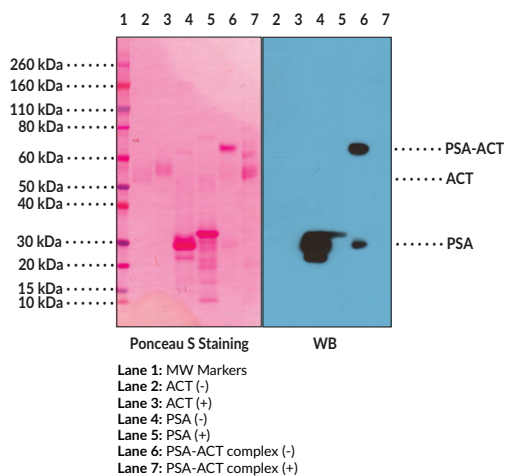
PSA Rabbit Monoclonal Antibody - Biotinylated (Clone RM323)

Item No. 42861

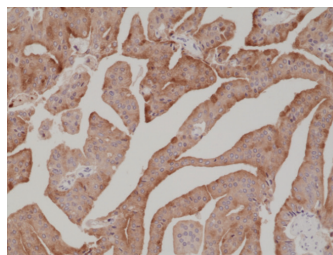
Overview and Properties

Contents:	This vial contains 50 µl of protein A-affinity purified monoclonal antibody.
Synonyms:	Kallikrein-3, KLK3, Prostate-specific Antigen, γ-Semioprotein
Immunogen:	Native PSA purified from human seminal fluid
Cross Reactivity:	(+) PSA, PSA-ACT complex
Species Reactivity:	(+) Human
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	PBS with 50% glycerol, 1% BSA, and 0.09% sodium azide
Concentration:	1.0 mg/ml
Clone:	RM323
Host:	Rabbit
Isotype:	IgG
Applications:	ELISA, Immunohistochemistry (IHC), Western blot (WB) (non-reducing conditions); the recommended starting dilution is 1:100-1:5,000 for ELISA, 1:500-1:1,000 for IHC, and 1:1,000-1:2,500 (non-reduced) for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

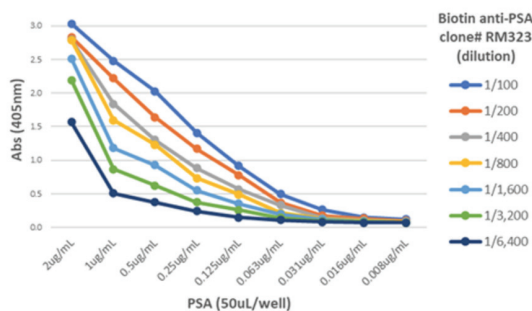
Images



WB of PSA (purified from human seminal fluid), ACT (α 1-antichymotrypsin, from human plasma), and PSA-ACT complex, under non-reduced (-) or reduced (+) conditions, using PSA Rabbit Monoclonal Antibody - Biotinylated (Clone RM323) at a dilution of 1:2,500.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human stomach using PSA Rabbit Monoclonal Antibody - Biotinylated (Clone RM323) at a dilution of 1:500 - 1:1,000.



A titration ELISA using PSA Rabbit Monoclonal Antibody - Biotinylated (Clone RM323). The plate was coated with different amounts of PSA. A serial dilution of PSA Rabbit Monoclonal Antibody - Biotinylated (Clone RM323) was used as the primary antibody and an alkaline phosphatase-conjugated streptavidin was used as the secondary antibody.

WARNING
 THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
 This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
 Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 01/31/2025

CAYMAN CHEMICAL
 1180 EAST ELLSWORTH RD
 ANN ARBOR, MI 48108 · USA
 PHONE: [800] 364-9897
 [734] 971-3335
 FAX: [734] 971-3640
 CUSTSERV@CAYMANCHEM.COM
 WWW.CAYMANCHEM.COM

PRODUCT INFORMATION



Description

Prostate-specific antigen (PSA) is an androgen-regulated serine protease and a member of the tissue kallikrein family that is encoded by *KLK3* in humans.¹ It is synthesized with a leader sequence, which is cleaved to generate the enzymatically inactive precursor protein proPSA, which is then cleaved between arginine and isoleucine at positions 7 and 8, respectively, to generate enzymatically active PSA. PSA is expressed primarily by the secretory epithelial cells in the acini and ducts of the prostate gland and is the major protein in seminal fluid, where it cleaves enogelin I and II, proteins that mediate gel formation in semen. It is expressed at lower levels in the paraurethral and perianal glands, breast, thyroid, and placental tissues, and apocrine sweat glands. In prostate cancer, the prostate epithelial basement membrane is disrupted, which allows PSA to enter the peripheral circulation, where it is bound by the protease inhibitor alpha-1-antichymotrypsin (ACT). Serum levels of PSA are commonly used for preventative prostate cancer screening.^{1,2} Cayman's PSA Rabbit Monoclonal Antibody - Biotinylated (Clone RM323) can be used for ELISA, immunohistochemistry (IHC), and Western blot (WB; non-reducing conditions) applications. The antibody recognizes free PSA and PSA complexed with ACT (PSA-ACT) from human samples.

References

1. Balk, S.P., Ko, Y.-J., and Bubley, G.J. Biology of prostate-specific antigen. *J. Clin. Oncol.* **21**(2), 383-391 (2003).
2. Ilic, D., Djulbegovic, M., Jung, J.H., *et al.* Prostate cancer screening with prostate-specific antigen (PSA) test: A systematic review and meta-analysis. *BMJ* **362**, k3519 (2018).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM