



Mouse Anti-Human PSA Monoclonal Antibody Datasheet

Product Name: mAb anti-Human PSA

Clone No.: CHYH2

Catalogue No.: MO-T40081B

Quantity: 0.5 mg/vial

Description: Mouse monoclonal antibody to Human Prostate Specific Antigen (PSA)

Purification: Protein G affinity purified

Product Type: Primary antibodies, **Detection** Antibody in matched Antibody Pair

Target Protein: Human Prostate Specific antigen (PSA)

Immunogen: Human Prostate Specific antigen (PSA)

Fusion Myeloma: Sp2/0-Ag14

Specificity: This antibody is reactive to normal prostate, benign prostate hyperplasia and prostate malignant carcinoma.

Species Reactivity: Human, others not tested

Host / Isotype: Mouse, IgG1 Kappa

Formulation: Lyophilized from 0.01M K₂HPO₄ – KH₂PO₄ buffer, pH = 7.0

Reconstitution: Double distilled water is recommended to reconstitute the antibody.

Storage: Store at -20°C

Research Area: Oncology

Background: Prostate specific antigen (PSA) is a kallikrein related peptidase secreted by the epithelial cells of the prostate gland. Majority of PSA exists in plasma in bounded forms with α 1 anti-chymotrypsin or other proteins. The protein is elevated in prostatic disorders such as prostate cancer and benign prostatic hyperplasia. PSA has been used as a biomarker for prostate cancer screening.

Applications: **ELISA:** This antibody, when conjugated with HRP, can be used in sandwich ELISA applications for human PSA detection in combination with a monoclonal capture antibody clone CHYH1 (Cat. No.: MO-T40081A).

Immunohistochemistry: The antibody can be used in IHC application for formalin-fixed, paraffin embedded and frozen tissue sections.

Western Blot:

1. Detect purified PSA antigen (100ng/well) using 1 μ g/ml mouse anti-human PSA mAb clone CHYH2.

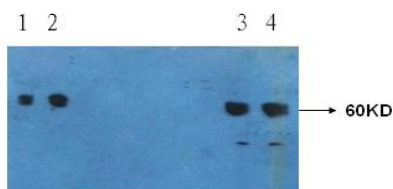


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2. Detect PSA antigen in HepG2 cell lysate.



Lane1 &2: mouse anti-human PSA antibody (CHYH2) used at 0.5 μ g/ml.
Lane3 & 4: mouse anti-human PSA antibody (CHYH2) used at 1 μ g/ml.

References:

1. Sadagopan Krishnan et al. Attomolar Detection of a Cancer Biomarker Protein in Serum by Surface Plasmon Resonance Using Superparamagnetic Particle Labels* Angew. Chem. Int. Ed. Engl. 2011 February 1; 50(5): 1175–1178
2. Vigneshwaran Mani et al. Ultrasensitive Immunosensor for Cancer Biomarker Proteins using Gold Nanoparticle Film Electrodes and Multienzyme-Particle Amplification. ACS Nano. Mar 24, 2009; 3(3): 585–594.
3. Mani V et al. Highly efficient binding of paramagnetic beads bioconjugated with 100,000 or more antibodies to protein-coated surfaces. Anal Chem. 2012 Dec 4;84(23):10485-91.
4. Bhaskara V. Chikkaveerai et al. Single-Wall Carbon Nanotube Forest Arrays For Immunochemical Measurement of 4 Protein Biomarkers for Prostate Cancer. Anal. Chem. Nov 1, 2009; 81(21): 9129-9134.
5. Bhaskara V. Chikkaveeraiah et al.

Microfluidic Electrochemical Immunoarray for Ultrasensitive Detection of Two Cancer Biomarker Proteins in Serum. Biosens Bioelectron. Jul 15, 2011; 26(11): 4477-4483.

6. Jeong-Mi Moon et al. A nanowire-based label-free immunosensor: Direct incorporation of a PSA antibody in electropolymerized polypyrrole. Biosensors and Bioelectronics. Volume 57, 15 July 2014, Pages 157–161.

7. Gary C. Jensen et al. Characterization of Multienzyme-Antibody-Carbon Nanotube Bioconjugates for Immunosensors. J Nanosci Nanotechnol. Jan 2009; 9(1): 249–255.

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