Human Prostasin/Prss8 Antibody

Monoclonal Mouse IgG_{2B} Clone # 530622

Catalog Number: MAB4599

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Prostasin/Prss8 in direct ELISAs and Western blots. In direct ELISAs, less than 15% cross-reactivity with recombinant mouse Prostasin/Prss8 is observed.
Source	Monoclonal Mouse IgG_{2B} Clone # 530622
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human Prostasin/Prss8 Ala33-Gly319 Accession # Q16651
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 μm filtered solution in PBS.

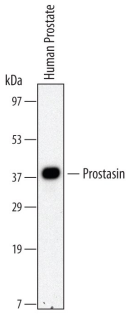
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	2 µg/mL	See Below
Immunohistochemistry	8-25 µg/mL	See Below
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Human Prostasin/Prss8 (Catalog # 4599-SE), see our available Western blot detection antibodies

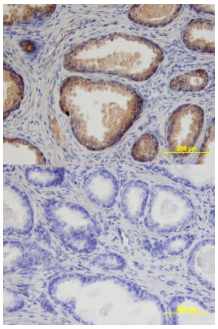
DATA

Western Blot



Detection of Human Prostasin/Prss8 by Western Blot. Western blot shows lysates of human prostate tissue. PVDF Membrane was probed with 2 µg/mL of Human Prostasin/Prss8 Monoclonal Antibody (Catalog # MAB4599) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for Prostasin/Prss8 at approximately 40 kDa (as indicated). This experiment was conducted under non-reducing conditions and using Immunoblot Buffer Group 1.

Immunohistochemistry



Prostasin/Prss8 in Human Prostate. Prostasin/Prss8 was detected in immersion fixed paraffin-embedded sections of human prostate using Human Prostasin/Prss8 Monoclonal Antibody (Catalog # MAB4599) at 15 µg/mL overnight at 4 ° C. Tissue was stained using the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Lower panel shows a lack of labeling if primary antibodies are omitted and tissue is stained only with secondary antibody followed by incubation with detection reagents. Specific staining was localized to cytoplasm. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Prostasin, also known as Prss8 and channel activating protease 1, is a 40 kDa serine protease with trypsin-like substrate specificity that is a member of the peptidase S1 family. The enzyme is synthesized from a 343 amino acid (aa) preproenzyme that contains a 29 aa signal peptide, a propeptide (aa 30-32) and a 290 aa mature chain. A second propeptide (aa 323-343) contains a 21 aa transmembrane region (GPI anchor) which can be proteolytically processed to generate a secreted form of the enzyme. The mature chain forms a heterodimer made up of a light chain (aa 33-44) and a heavy chain (aa 45-322) that are connected by disulfide bonds. In addition, aa 45-286 constitute a peptidase S1 domain, and aa 159 is a potential site for N-linked glycosylation. Mature human Prostasin is 79% and 78% aa identical to mature mouse and rat Prostasin, respectively. Prostasin is highly expressed in the prostate gland, and is expressed at lower levels in the lung, kidney, salivary gland, and pancreas. It activates amiloride-sensitive sodium channels.

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