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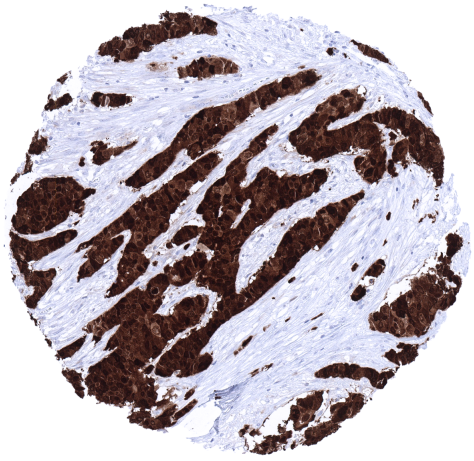
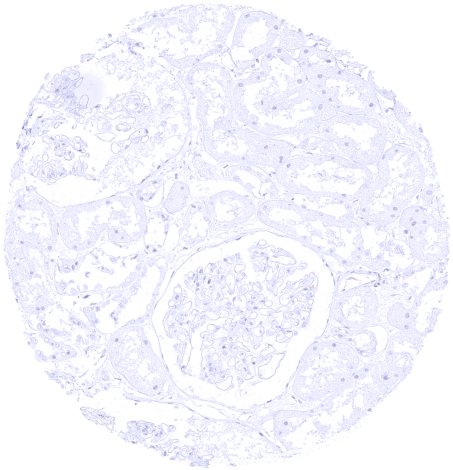
Anti- S100P Antibody
MSVA-480R / Recombinant Rabbit monoclonal

Human SwissProt	P25815
Human Gene Symbol	S100P
Synonyms	Migration inducing gene 9 (MIG9); S100E; S100 calcium binding protein P
Specificity	S100P
Immunogen	Recombinant fragment of human S100P protein
Isotype	Rabbit / IgG
Species Reactivity	Human
Localization	Nucleus and cytoplasm

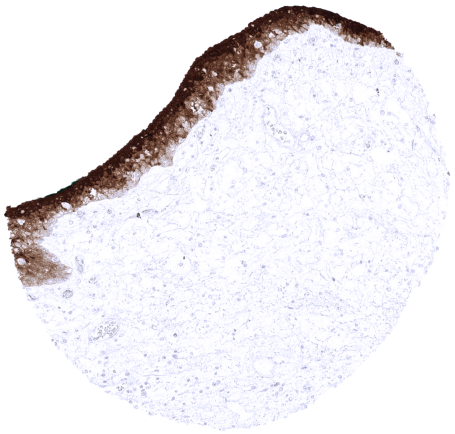
Storage & Stability	Antibody with azide – store at 2 to 8 C. Antibody without azide – store at -20 to -80 C. Antibody is stable for 24 months. Non-hazardous. No MSD required.
Supplied As	200ug/ml of Ab Purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available without BSA
Positive Control	Urinary bladder: A strong S100P immunostaining should be seen in the urothelium but not in the stroma or muscular cells.
Negative Control	Kidney: S100P immunostaining should be completely absent.



Muscle-invasive urothelial carcinoma of the urinary bladder showing a strong S100P immunostaining of tumor cells.



Kidney, cortex - S100P immunostaining is completely lacking in the kidney.



Urinary bladder, urothelium - A strong S100P immunostaining is seen in the urothelium.

Biology

S100P is a 10.4 kDa protein, coded by the S100P gene at 4p16. The S100 genes are a group of water soluble low-molecular-weight (9–12 kD) proteins characterized by two calcium-binding sites that have a specific helix-loop-helix ("EF-hand type") conformation. The "S100" gene name is derived from the fact that these proteins are soluble in 100%. S100P interacts, directly or indirectly, with a number of different proteins, many of which regulate actin cytoskeleton dynamics and extracellular matrix remodeling. Interaction partners for example include Ezrin, IQGAP1, myosin IIA, cathepsin D, and cofilin. Through these interactions, S100P integrates and regulates various signaling pathways and induces a broad range of important functional results. A strong S100P immunostaining is regularly seen in trophoblastic and chorion cells of the placenta, all cell layers of urothelium, surface epithelial cells and neck cells (but not of glands) of the stomach, and in granulocytes. A weak to moderate S100P staining can be found in variable fractions of epithelial cells of the colon mucosa, duodenum and jejunum (mainly in goblet cells), transitional epithelium of the anal canal, as well as in mucinous and basal cells of sublingual glands. In the tonsil crypts, a weak to moderate S100P staining occurs in the superficial layers of squamous epithelium. In the thymus, a moderate staining of corpuscles of Hassall's but not of other epithelial cells is seen. S100P can occasionally also occur in several other normal tissues, perhaps due to specific functional changes such as inflammation. Among tumors, S100P immunostaining is particularly strong and frequent in a considerable fraction of urothelial, colorectal and gastrointestinal cancers. Various other tumor entities have been described to express S100P in a smaller fraction of cases.

Potential Research Applications

-The diagnostic utility of S100 expression analysis should be further investigated in a large cohort of tumors from different entities
-The diagnostic role of S100P as a parameter of malignancy needs to be investigated.
-The prognostic role of S100P expression in tumors is not sufficiently analyzed so far.
-The role of S100P in inflammatory disease should be further evaluated.

Protocol Suggestions

Dilution: 1:150 ; pH 7,8 is optimal. Freshly cut sections should be used (less than 10 days between cutting and staining deteriorates staining intensity for most antibodies in IHC).

Limitations

This antibody is available for **research use only** and is not approved for use in diagnostics.

Warranty

There are no warranties, expressed or implied, which extend beyond this description. MSVA is not liable for any personal injury or economic loss resulting from this product.

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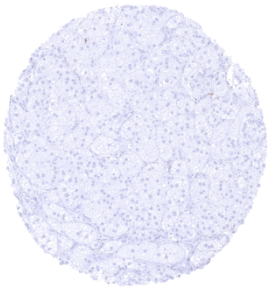
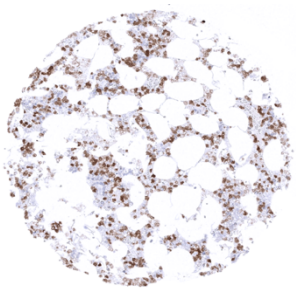
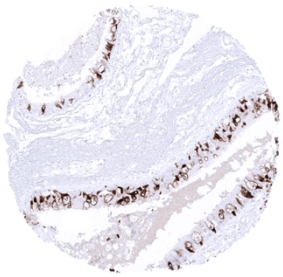


Appendix, mucosa - Abundant CD22 positive B-lymphocytes in the area of a lymph follicle of the appendix mucosa

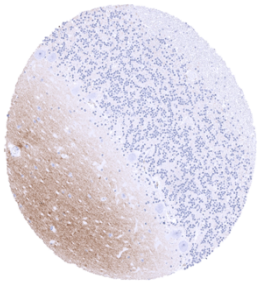
Appendix, mucosa



Duodenum, mucosa

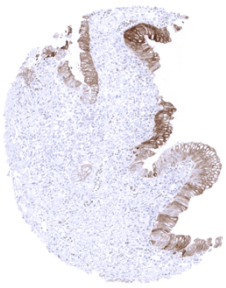


Epididymis

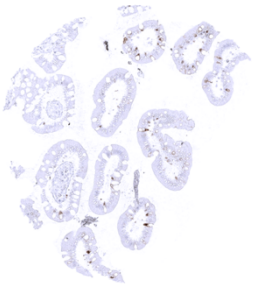


Kidney, medulla

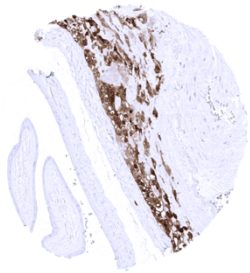
Liver



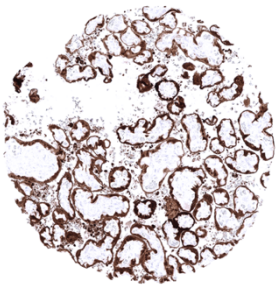
Lymph node - Germinal centre and mantle zone contain numerous CD22 positive B-lymphocytes, while these cells are only rare in the interfollicular zone



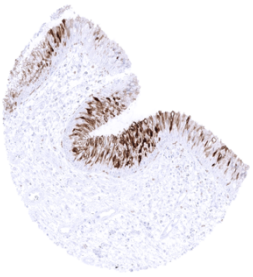
Lymph node - CD22 positive B-lymphocytes predominate in germinal centres and mantle zones but are only sparse in the interfollicular zone



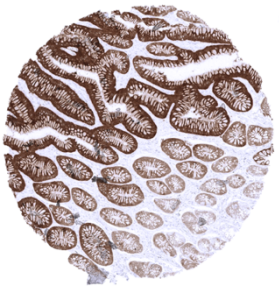
Placenta, mature



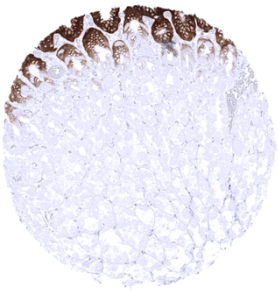
Spleen - CD22 positive B-lymphocytes predominate in the white pulp but are only sparse in the red pulp



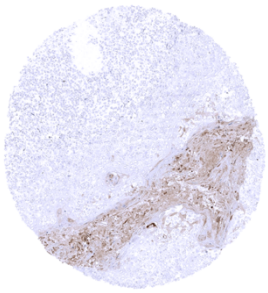
Testis



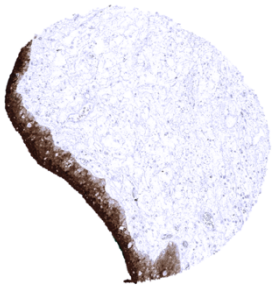
Thymus - CD22 positive B-lymphocytes are rather sparse in the thymus



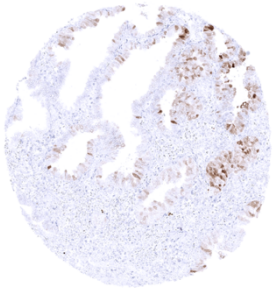
Tonsil - CD22 positive B-lymphocytes are abundant in this sample of the tonsil



Tonsil, surface epithelium



Uterus, ectocervix



Uterus, endometrium (proliferation)