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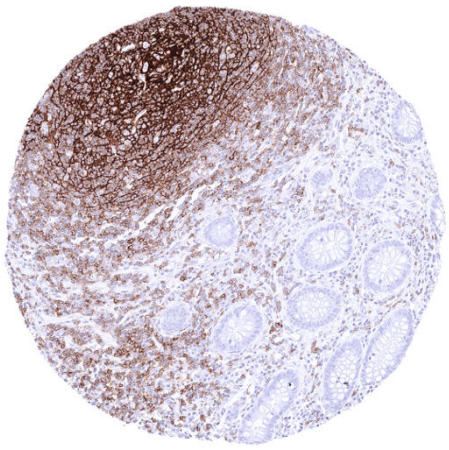
Revision 4.0

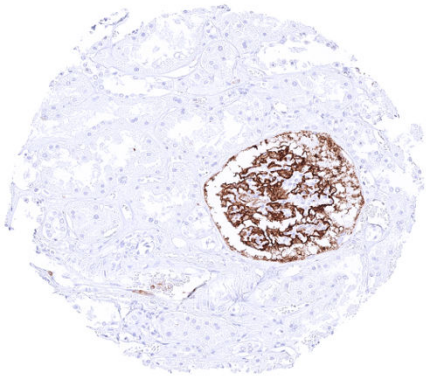
Anti- CD35 Antibody
MSVA-035M / Mouse monoclonal

Human SwissProt	P17927
Human Gene Symbol	CD35
Synonyms	C3BR, C4BR, C3b/C4b receptor, C3 binding protein, Complement receptor type 1, Complement Component (3b/4b) receptor 1 including Knops blood group system
Specificity	CD35
Immunogen	Recombinant human CD35 fragment
Isotype	Kappa / IgG1
Species Reactivity	Human
Localization	Membranous

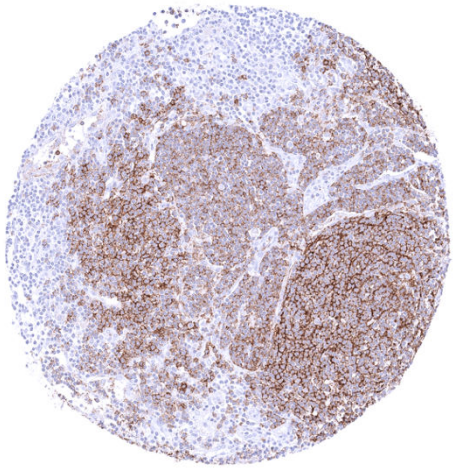
Storage & Stability	Antibody with azide – store at 2 to 8 C. Antibody without azide – store at -20 to -80 C. Antibody is stable for 24 months. Non-hazardous. No MSD required.
Supplied As	Purified antibody from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with <1% BSA & <0.1% azide. Antibody concentrate is optimized for dilution within dilution range using commercially available antibody diluent for IHC.
Positive Control	Tonsil: A strong CD35 must be seen in follicular dendritic cells while there is a less intense CD35 staining of a subset of lymphocytes.
Negative Control	Tonsil: Squamous epithelium and most lymphocytic cells must be CD35 negative.



Appendix mucosa with strong membranous CD35 staining of follicular dendritic cells and a moderate to strong CD35 positivity of a large subset of lymphocytes. The epithelium is CD35 negative.



Kidney with strong membranous CD35 positivity of visceral (podocytes) and peripheral cells of the Bowman capsule.



Marginal zone lymphoma with distinct CD35 staining of tumor cells.

Biology

Complement receptor type 1 (CR1) also known as CD35 (cluster of differentiation 35) is a monomeric type I membrane glycoprotein which is coded by the CR1 gene on chromosome 1q32. CR1 is needed for connecting cells to immune complexes and other particles that contain activated complement on their surface. It plays a role in T-cell and B-cell mediated immune regulation and it is a critical factor for the actions of the complement system as it interacts with C3b and C4b to promote neutrophil-mediated phagocytosis. Due to its role in complement activation, innate immunity, and chronic inflammation, CD35 appears to be involved in several different disease types. Polymorphisms of the CR1 gene have been shown to impact susceptibility for several disease such as infections with various agents including Covid-19 or lepropsy, several cancer types, mesangiocapillary glomerulonephritis, systemic lupus erythematosus, and sarcoidosis. Antigens located on the CR1 protein constitute the Knops blood group system. In normal tissues, CD35 is most highly expressed normal follicular dendritic cells, but can also be seen on lymphocytes of various types, macrophages, granulocytes, and erythrocytes. CD35 positive inflammatory cells can be found in all cancers at a variable extent. CD35 expression is variable is malignant lymphomas.

Potential Research Applications

-The diagnostic role of CD35 IHC in lymphoma needs to be further evaluated.
-The role of CD35 polymorphisms for the risk of developing specific diseases needs to be further investigated.
-The role of CD35 in cancer should be further elucidated.

Protocol Suggestions

Dilution: 1:100 - 1:200; pH 7,8 is optimal. Freshly cut sections should be used (more 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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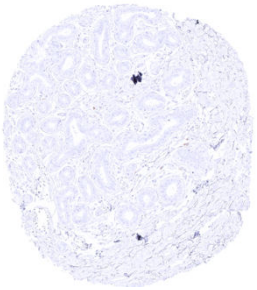
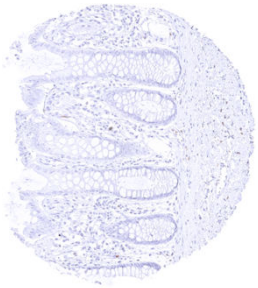
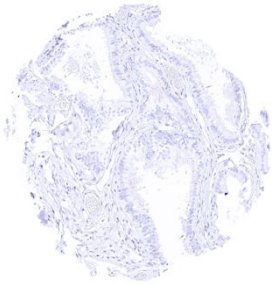
Adrenal gland



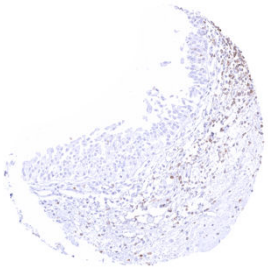
Breast



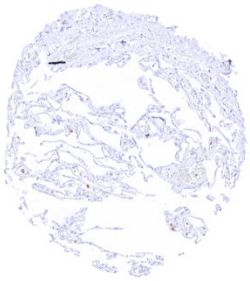
Colon descendens, mucosa



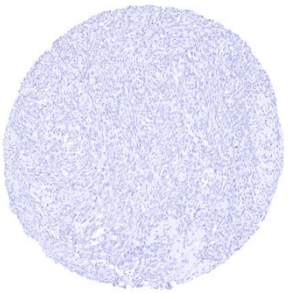
Gallbladder, epithelium



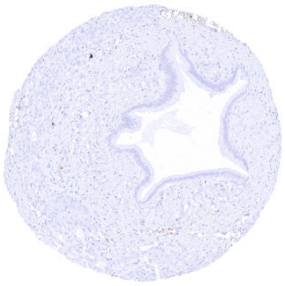
Kidney, pelvis, urothelium – Distinct membranous CD35 staining of a large subset of inflammatory cells. The squamous epithelium is CD35 negative.



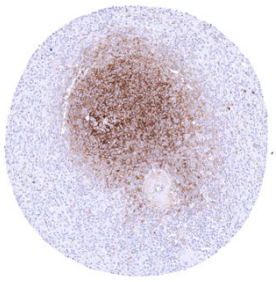
Lung



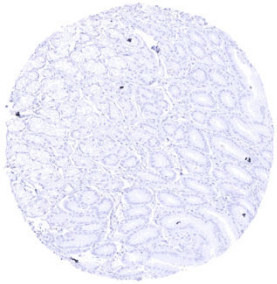
Ovary, stroma



Pancreas



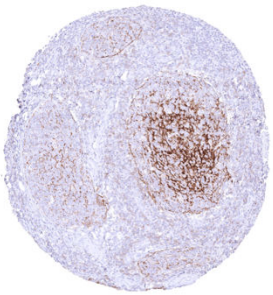
Spleen – Strong membranous CD35 staining of most cells in the white pulpa.



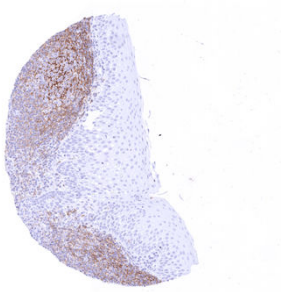
Stomach, antrum

Stomach, muscular wall

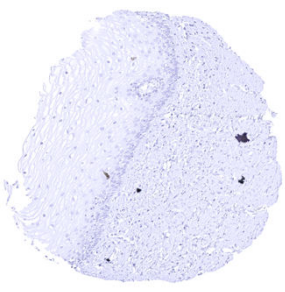
Thymus – Distinct membranous CD35 staining of only few lymphocytes.



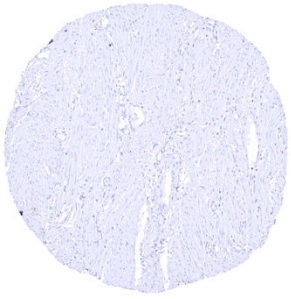
Tonsil – Strong membranous CD35 staining of follicular dendritic cells. Only few lymphocytic cells show CD35 positivity.



Tonsil, surface epithelium – Strong membranous CD35 staining of follicular dendritic cells and of many lymphocytes. The squamous epithelium is CD35 negative.



Uterus, ectocervix



Uterus, myometrium