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IgM (Immunoglobulin Mu Heavy Chain) (B-Cell Marker) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone SPM188]
Catalog # AH11528

Specification

IgM (Immunoglobulin Mu Heavy Chain) (B-Cell Marker) Antibody - With BSA and Azide - Product Information

Application	**,2,3,4,**
Primary Accession	P01871
Other Accession	3507, 510635, P20769
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**Mouse / IgG1, kappa**
Calculated MW	**50-75kDa KDa**

IgM (Immunoglobulin Mu Heavy Chain) (B-Cell Marker) Antibody - With BSA and Azide - Additional Information

Other Names
Ig mu chain C region, IGHM

Storage
Store at 2 to 8°C.Antibody is stable for 24 months.

Precautions
IgM (Immunoglobulin Mu Heavy Chain) (B-Cell Marker) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

IgM (Immunoglobulin Mu Heavy Chain) (B-Cell Marker) Antibody - With BSA and Azide - Protein Information

Name IGHM {ECO:0000303|PubMed:11340299, ECO:0000303|Ref.14}

Function
Constant region of immunoglobulin heavy chains. Immunoglobulins, also known as antibodies, are membrane-bound or secreted glycoproteins produced by B lymphocytes. In the recognition phase of humoral immunity, the membrane-bound immunoglobulins serve as receptors which, upon binding of a specific antigen, trigger the clonal expansion and differentiation of B lymphocytes into immunoglobulins- secreting plasma cells. Secreted immunoglobulins mediate the effector phase of humoral immunity, which results in the elimination of bound antigens (PubMed:22158414, PubMed:20176268). The antigen binding site is formed by the variable domain of one heavy chain, together with that of its associated light chain. Thus, each immunoglobulin has two antigen binding sites with remarkable affinity for a particular antigen. The variable domains are assembled by a process called V-(D)-J rearrangement and can then be subjected to somatic hypermutations which, after exposure to antigen and selection, allow affinity maturation for a particular antigen (PubMed:<a

href="http://www.uniprot.org/citations/17576170" target="_blank">17576170, PubMed:20176268).

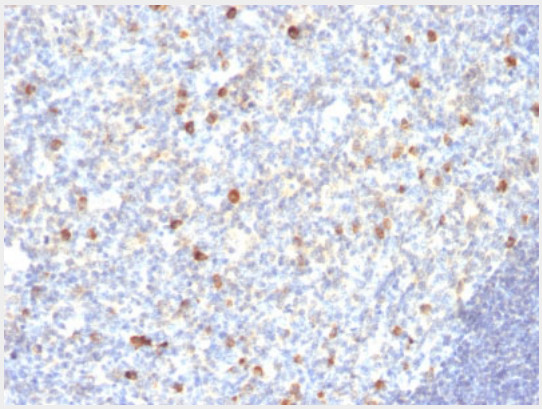
Cellular Location
[Isoform 1]: Secreted. Note=During differentiation, B-lymphocytes switch from expression of membrane-bound IgM to secretion of IgM.

IgM (Immunoglobulin Mu Heavy Chain) (B-Cell Marker) Antibody - With BSA and Azide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

IgM (Immunoglobulin Mu Heavy Chain) (B-Cell Marker) Antibody - With BSA and Azide - Images



Formalin-fixed, paraffin-embedded human Tonsil stained with IgM Monoclonal Antibody (SPM188)

IgM (Immunoglobulin Mu Heavy Chain) (B-Cell Marker) Antibody - With BSA and Azide - Background

Recognizes a protein of 75kDa, identified as mu heavy chain of human immunoglobulins. It does not cross-react with alpha (IgA), gamma (IgG), epsilon (IgE), or delta (IgD), heavy chains, T-cells, monocytes, granulocytes, or erythrocytes. Monomeric IgM is expressed as a membrane bound antibody on the surface of B cells and as a pentamer when secreted by plasma cells. IgM antibody is prominent in early immune responses to most antigens. Aberrant levels are associated with immune deficiency states, hereditary deficiencies, myeloma, Waldenstrom's macroglobulinemia, chronic infection and hepatocellular disease. This MAb is useful in the identification of leukemias, plasmacytomas, and certain non-Hodgkin s lymphomas. The most common feature of these malignancies is the restricted expression of a single heavy chain class. Demonstration of clonality in lymphoid infiltrates indicates that the infiltrate is clonal and therefore malignant.

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References

Baryshnikov AIu. Gematol Transfuziol. 1990 Aug;35(8):4-7. | Martinova T.et al., In: Problems medical biotechnology and immunological infection diseases. Vol 11, 182-186, 1996. | Baryshnikov A, and Tonevitsky A, Monoclonal antibodies in laboratory and clinic. Thesis p212, 1997. |