

**IgM (Immunoglobulin Mu Heavy Chain) (B-Cell Marker) Antibody - With BSA and Azide**  
**Mouse Monoclonal Antibody [Clone ICO-30 ]**  
**Catalog # AH11525****Specification****IgM (Immunoglobulin Mu Heavy Chain) (B-Cell Marker) Antibody - With BSA and Azide -**  
**Product Information**

Application	IHC, IF, FC
Primary Accession	<a href="#">P01871</a>
Other Accession	<a href="#">3507</a> , <a href="#">510635</a> , <a href="#">P20769</a>
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

**Application Note**

IHC~~1:100~500  
IF~~1:50~200  
FC~~1:10~50

**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.

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**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:<a href="http://www.uniprot.org/citations/20176268" target="\_blank">20176268</a>, PubMed:<a href="http://www.uniprot.org/citations/22158414" target="\_blank">22158414</a>). 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</a>, PubMed:<a href="http://www.uniprot.org/citations/20176268" target="\_blank">20176268</a>).

#### **Cellular Location**

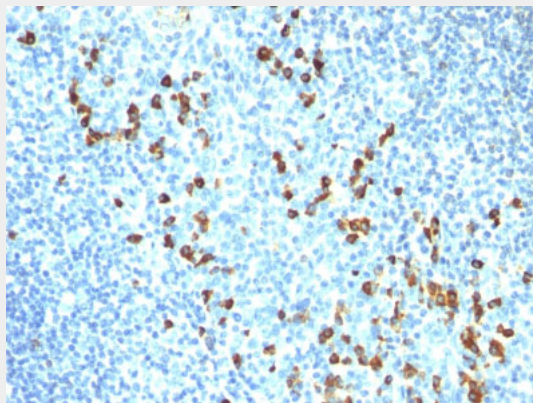
[Isoform 1]: Secreted. Note=During differentiation, B-lymphocytes switch from expression of membrane-bound IgM to secretion of IgM.

### **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 Cytometry](#)
- [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 (ICO-30)

### **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 Alu. 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