10320 Camino Santa Fe, Suite G
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Tel: 858.875.1900 Fax: 858.875.1999

IgM

Mouse Monoclonal antibody(Mab)
Catalog # AD80083

Specification

IgM - Product info

Application	**IHC-P**
Primary Accession	P01871
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Calculated MW	**51924**

IgM - Additional info

Gene Name	**IGHM {ECO:0000303|PubMed:11340299, ECO:0000303|Ref.13}**

Other Names
Immunoglobulin heavy constant mu {ECO:0000303|PubMed:11340299, ECO:0000303|Ref.13}, Ig mu chain C region, Ig mu chain C region BOT, Ig mu chain C region GAL, Ig mu chain C region OU, IGHM {ECO:0000303|PubMed:11340299, ECO:0000303|Ref.13}

Dilution
IHC-P~~Ready-to-use

Storage
Maintain refrigerated at 2-8°C

Precautions	**IgM Antibody is for research use only and not for use in diagnostic or therapeutic procedures.**

IgM - 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**

Cellular Location	**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:17576170, PubMed:20176268). IgM antibodies play an important role in primary defense mechanisms. They have been shown to be involved in early recognition of external invaders like bacteria and viruses, cellular waste and modified self, as well as in recognition and elimination of precancerous and cancerous lesions. The membrane-bound form is found in the majority of normal B-cells alongside with IgD. Membrane-bound IgM induces the phosphorylation of CD79A and CD79B by the Src family of protein tyrosine kinases. It may cause death of cells by apoptosis. It is also found in soluble form, which represents about 30% of the total serum immunoglobulins where it is found almost exclusively as a homopentamer. After the antigen binds to the B-cell receptor, the secreted form is secreted in large amounts (PubMed:3137579, PubMed:16895553). Isoform 1: Secreted. Note=During differentiation, B-lymphocytes switch from expression of membrane- bound IgM to secretion of IgM**

IgM - 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 - Images

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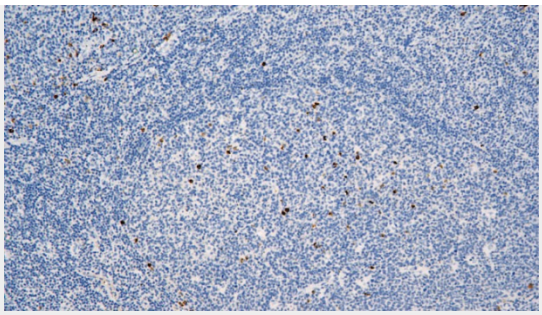
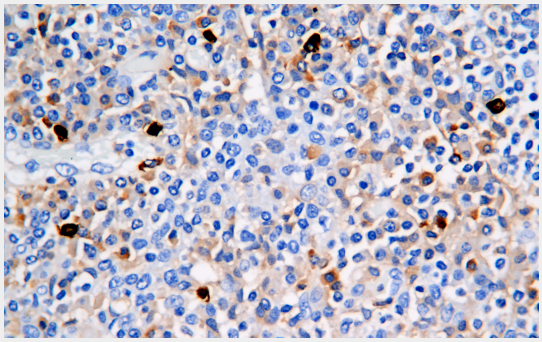


Tonsil



Immunohistochemical analysis of paraffin-embedded human tonsil tissue using AD80083 performed on the Abcarta® FAIP-30 Fully automated IHC platform.Tissue was fixed with formaldehyde at room temperature, antigen retrieval was by heat mediation with a Citrate buffer (pH6. 0).Samples were incubated with primary antibody(Ready-to-use) for 15 min at room temperature. AmpSeeTM Detection Systems□Abcepta:AR005□ was used as the secondary antibody.