abcam

ab18201

Anti-IgM antibody [UCH-B1]

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	Preservative: 0.02% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Cell preparation containing B Cell protein. The exact immunogen used to generate this antibody is proprietary information.
Clone number	UCH-B1
Purification technique	Affinity purification Protein A/G
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Expected

Species	Human
Dilution info	-
Notes	ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

ICC/IF

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

IHC-Fr

Expected

Species	Human
Dilution info	-
Notes	Acetone fixed.

Target data

See full target information IgM

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

UCH-B1 antigen (85kD) is detected on a sub-population of B lymphocytes, probably related to stage of activation or maturation. UCH-B1 may be useful for differential diagnosis of B cell leukaemias and as a marker of prolymphocytic leukaemia.
Does not work on formalin fixed and parrafin embedded tissues.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	IgM also known as immunoglobulin M is a type of antibody with a molecular mass of approximately 970 kDa. It is the largest antibody present in the human circulatory system mostly found in plasma and lymphatic tissue. IgM is secreted primarily by B cells as a pentamer with a J chain providing a high avidity for antigens. When bound to an antigen IgM can activate the complement system a part of the immune system that helps clear pathogens from an organism.
Biological function summary	IgM acts as the first line of defense during the initial stages of an immune response. It plays an important part in agglutination and neutralization of pathogens forming a complex that alerts other components of the immune system to take action. IgM exists before class-switching to IgG providing immediate protection. It also plays a role in antibody-dependent cellular cytotoxicity. Although not typically a long-term solution its presence is critical for providing initial protection until more specific antibodies like IgG and IgA are produced.
Pathways	The immune response that involves IgM begins with the activation of the classical complement pathway. This pathway bridges the innate and adaptive immunity ensuring the communication and coordination of immune responses. The pathway involves C1q protein binding to IgM-antigen complexes. IgM also interacts with antigen-presenting cells facilitating the processing of antigens and interaction with T cells. These interactions connect IgM with other proteins like IgG and IgA influencing various immune response pathways.
Associated diseases and disorders	IgM is associated with conditions such as Waldenström's macroglobulinemia and rheumatoid arthritis. Waldenström's macroglobulinemia involves the overproduction of IgM by clonal B cells leading to symptoms like anemia bleeding and neuropathy. Rheumatoid arthritis shows increased IgM levels as part of the autoimmune response affecting joints. In these diseases the IgM antibody interacts with rheumatoid factor and other immune proteins involved in inflammation demonstrating its significant role in autoimmunity and abnormal immune responses.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

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