Anti-Human IgM (MHM-88)



PRODUCT DESCRIPTION

Clone: MHM-88

Isotype: Mouse IgG1, k

Tested application: flow cytometry (Quality tested) assays.

Immunogen: Human Ig cocktail

Species reactivity: Human

Storage instruction: store in the dark at 2-8 oC

Storage buffer: aqueous buffered solution containing protein stabilizer and 0.09% sodium azide (NaN3)

Presentation: liquid

Source: Supernatant proceeding from an in vitro cell culture of a cell hybridoma.

Purification: Affinity chromatography.

Other Names: IGHM, Immunoglobulin M

Gene ID: 3507

2. ANTIGEN DETAILS

Large description: Immunoglobulin (Ig) G (IgG) is the predominant of five classes of Ig (IgG, IgA, IgM, IgE, and IgD). Igs differ in heavy chain structure and effector function.

Immunoglobulin M (IgM) represents the primary antibody produced during an initial immune response. Structurally, IgM is a pentameric molecule composed of five immunoglobulin units linked by a joining (J) chain, providing it with high avidity for antigens. Owing to its multivalent structure, IgM is highly efficient in activating the classical complement pathway and in promoting agglutination and neutralization of pathogens. In healthy individuals, IgM accounts for approximately 5–10% of total serum immunoglobulins and is predominantly expressed on the surface of naïve B lymphocytes as a membrane-bound form (mlgM), where it functions as part of the B-cell receptor (BCR) complex.

Upon antigen encounter, IgM plays a key role in the initiation of humoral immune responses and the activation of downstream signaling pathways leading to B-cell differentiation and antibody production. The anti-human IgM monoclonal antibody specifically recognizes the μ heavy chain of human IgM and does not cross-react with other immunoglobulin isotypes (IgG, IgA, IgE, or IgD). When used in flow cytometry or immunofluorescence assays, it enables the identification and quantification of IgM-expressing B cells, facilitating studies of B-cell maturation, immune competence, and abnormal immunoglobulin expression associated with immunodeficiencies, autoimmune diseases, and B-cell malignancies.

WARRANTY

Warranted only to conform to the quantity and contents stated on the label or in the product labelling at the time of delivery to the customer. Immunostep disclaims hereby other warranties.

Immunostep's sole liability is limited to either the replacement of the products or refund of the purchase price.

. ADDITIONAL INFORMATION

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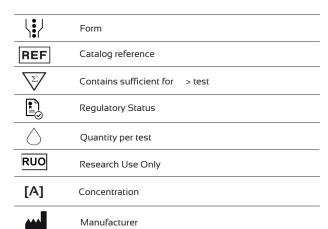
Please, refer to www.immunostep.com technical support for more information.

5. REFERENCES

 Vilpo J, Tobin G, Hulkkonen J, Hurme M, Thunberg U, Sundström C, Vilpo L, Rosenquist R. Surface antigen expression and correlation with variable heavy-chain gene mutation status in chronic lymphocytic leukemia. Eur J Haematol. 2003 Jan;70(I):53-9. doi: 10.1034/ j.1600-0609.2003.02838.x. PMID: 12631259.

2. Barton JC, Barton JC, Bertoli LF, Acton RT. Factors associated with IgG levels in adults with IgG subclass deficiency. BMC Immunol. 2021 Aug 9;22(I):53. doi: 10.1186/s12865-021-00447-3. PMID: 34372773; PMCID: PMC8353875.

6. EXPLANATION OF SYMBOLS



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