

Product Information

Anti-Human IgM (μ -chain specific) antibody

Mouse monoclonal

Clone MB-11, purified from hybridoma cell culture

Product Number **SAB4200780**

Product Description

Anti-Human IgM (μ -chain specific) antibody, Mouse monoclonal (mouse IgG2b isotype) is derived from the MB-11 hybridoma, produced by the fusion of mouse myeloma cells and splenocytes from a mouse immunized with purified human IgM protein. The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents, Product Number ISO2. The antibody is purified from culture supernatant of hybridoma cells.

Anti-Human IgM (μ -chain specific) antibody, Mouse monoclonal specifically recognizes μ chain of Human IgM. The antibody shows no cross-reactivity with human IgG, Fab, Fc, κ , λ , and γ chains. The antibody is recommended to use in various immunological techniques, including ELISA and Immunoblot.¹

Immunoglobulin M (IgM) is the major class of surface immunoglobulins on lymphocyte membranes. IgM is suggested to act as the first line of defense during microbial infections. IgM has a pentameric structure, in which monomers are linking together via disulfide bonds.² Surface IgM is expressed on immature and mature B cells, whereas IgM heavy chain is expressed intracellularly in pre-B cells. IgM serves as the antigen receptor of naive B cells and is involved in B cell maturation and complement activation.³

Detection of specific IgM antibodies is commonly used in clinical diagnostics. For example, presence of IgM antibodies in a patient's serum indicates recent infection and IgM in a neonate's serum indicates intrauterine infection (e.g., congenital rubella syndrome).⁴ In addition, the development of anti-donor IgM after combined liver-kidney transplantation had been shown to provide a graft-protecting effect.⁵

Anti-Human IgM (μ -specific) antibody can be used in detection of the abnormal concentration of IgM in patient sera and diagnosis of IgM-associated pathologies, such as selective IgM immunodeficiency (SIgMD) and the hyperimmunoglobulin M (hyper-IgM or HIGM) syndromes.⁶⁻⁷

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody concentration: ~1.0 mg/mL

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2–8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Indirect ELISA: a working concentration of 0.1–0.2 μ g/mL is recommended using 2.5 μ g/mL Human IgM myeloma for coating.

Note: In order to obtain best results in different techniques and preparations, it is recommended to determine optimal working concentration by titration test.

References

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