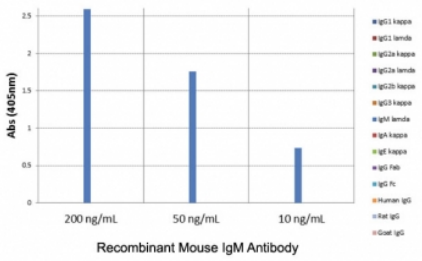
Mouse IgM Antibody for ELISA / Anti-Mouse IgM Detection Antibody [clone RM109] (R20170)

Catalog No.	Formulation	Size
R20170-100UG	1 mg/ml in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	100 ug

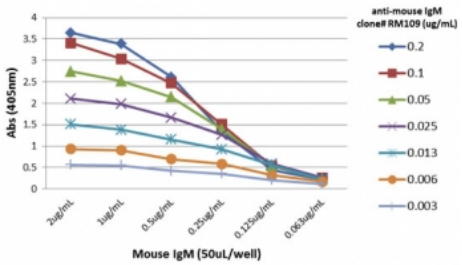
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Mouse
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	RM109
Purity	Protein A purified from animal origin-free supernatant
UniProt	P01872
Gene ID	16019
Applications	ELISA: 0.005ug/ml-0.2ug/ml
Limitations	This Mouse IgM Antibody for ELISA / Anti-Mouse IgM Detection Antibody is available for research use only.



Mouse IgM Antibody for ELISA Subclass Specificity Analysis. ELISA analysis of mouse immunoglobulins demonstrates that clone RM109 selectively recognizes mouse IgM / Ighm, with strong signal observed across tested concentrations. No cross-reactivity is detected with other mouse immunoglobulin classes including IgG1, IgG2a, IgG2b, IgG3, IgA, or IgE, and no reactivity is observed with human, rat, or goat IgG. This binding profile supports highly specific detection of mouse IgM and highlights the utility of this Mouse IgM Antibody for ELISA / Anti-Mouse IgM Detection Antibody for subclass-specific ELISA-based immunoassays.



Mouse IgM Antibody for ELISA Titration Curve. ELISA titration analysis using plates coated with serial dilutions of mouse IgM demonstrates strong, concentration-dependent binding of clone RM109 across a broad dynamic range. Signal intensity decreases proportionally with antibody dilution, confirming high sensitivity and consistent binding performance. Detection was performed using an alkaline phosphatase-conjugated anti-rabbit IgG secondary antibody, supporting reliable quantification of mouse IgM / Ighm in ELISA-based immunoassays.

Description

Mouse immunoglobulin mu (Ighm) encodes the heavy chain constant region of IgM, the first antibody isotype produced during primary immune responses in murine systems and a key marker of early immune activation. IgM is predominantly secreted as a pentameric complex composed of five immunoglobulin units linked by a joining chain, enabling exceptionally high avidity antigen binding even at relatively low affinity. This multivalent structure allows IgM to efficiently capture antigen and strongly activate the classical complement pathway, making it a critical component of early humoral immunity in mouse models.

Mouse IgM Antibody for ELISA / Anti-Mouse IgM Detection Antibody is specifically optimized for sensitive and selective detection of mouse IgM in ELISA-based immunoassays. Mouse IgM antibody, also known as anti-Ighm antibody or mouse IgM immunoglobulin antibody, enables accurate quantification of IgM in serum, plasma, and cell culture samples derived from murine systems. This recombinant rabbit monoclonal antibody clone RM109 recognizes mouse IgM and provides a reliable tool for measuring early-stage antibody responses in preclinical and experimental settings.

In ELISA workflows, detection of mouse IgM is particularly important for monitoring immune response kinetics following antigen exposure. IgM is produced rapidly during the initial phase of immune activation and precedes class switching to IgG subclasses, making it a valuable marker for acute or early-stage immune responses. The Mouse IgM Antibody for ELISA / Anti-Mouse IgM Detection Antibody functions effectively in ELISA formats to support precise quantification of IgM with high specificity and minimal cross-reactivity, enabling accurate interpretation of immune timing and response magnitude.

Clone RM109 antibody recognizes mouse IgM, ensuring selective detection without cross-reactivity to other mouse immunoglobulin classes such as IgG, IgA, IgD, or IgE. The recombinant rabbit monoclonal format provides high affinity binding, strong reproducibility, and minimal lot-to-lot variability, supporting consistent ELISA performance across experiments. This antibody is well suited for applications requiring reliable detection of IgM in complex murine biological samples.

Detection of mouse IgM is widely applied in immunology research, infectious disease models, and vaccine development studies. Because IgM levels rise rapidly following antigen exposure and decline as adaptive immune responses mature, accurate measurement provides insight into immune response kinetics, vaccine efficacy, and disease progression in mouse models. This antibody supports these applications by enabling sensitive and specific detection of Ighm-containing immunoglobulins in ELISA-based systems requiring high performance, reproducibility, and quantitative accuracy.

This antibody is part of a broader immunoglobulin detection antibody collection, including reagents for Ig classes and light chains across multiple species and immunoassay formats.

Application Notes

The stated application concentrations are suggested starting points. Titration of the Mouse IgM Antibody for ELISA / Anti-Mouse IgM Detection Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

Mouse IgM was used as the immunogen for this recombinant Mouse IgM antibody.

Storage

Store the recombinant Mouse IgM antibody at -20oC (with glycerol) or aliquot and store at -20oC (without glycerol).

Alternate Names

Anti-mouse IgM ELISA antibody, Mouse IGHM antibody, Mouse IgM detection antibody, IgM mouse antibody, Mouse IgM ELISA detection antibody

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