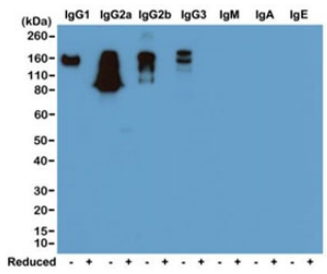
Mouse IgG Antibody for ELISA / Fc-Specific Anti-Mouse IgG Detection Antibody [clone RM104] (R20163)

Catalog No.	Formulation	Size
R20163-100UG	1 mg/ml in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	100 ug

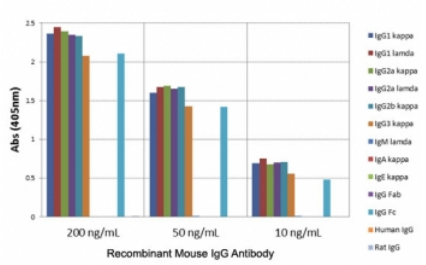
Recombinant RABBIT MONOCLONAL

Bulk quote request

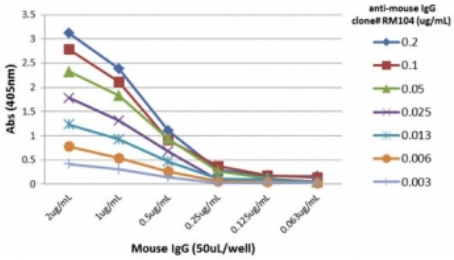
Availability	1-3 business days
Species Reactivity	Mouse
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	RM104
Purity	Protein A purified from animal origin-free supernatant
UniProt	P01868
Gene ID	16017
Applications	ELISA : 0.005-0.2ug/ml Western Blot (non-reduced) : 0.1-0.5ug/ml
Limitations	This Mouse IgG Antibody for ELISA / Fc-Specific Anti-Mouse IgG Detection Antibody is available for research use only.



Mouse IgG Antibody for WB Subclass Reactivity Analysis. Western blot analysis of nonreduced (-) and reduced (+) mouse immunoglobulins demonstrates that clone RM104 selectively recognizes mouse IgG subclasses, with strong signal observed for nonreduced IgG1, IgG2a, IgG2b, and IgG3, consistent with Fc-region-dependent binding. Signal is markedly reduced under reducing conditions, reflecting disruption of Fc structural integrity. No cross-reactivity is detected with IgM, IgA, or IgE. These results support Fc-specific recognition and highlight the utility of this Mouse IgG Antibody / Fc-Specific Anti-Mouse IgG Detection Antibody for selective IgG detection.



Mouse IgG Antibody for ELISA Subclass Specificity Analysis. ELISA analysis of mouse immunoglobulins demonstrates that clone RM104 selectively recognizes mouse IgG / Ighg through Fc-region binding, with strong signal observed for IgG1, IgG2a, IgG2b, and IgG3 across tested concentrations. No cross-reactivity is detected with IgM, IgA, or IgE, and no reactivity is observed with human or rat IgG. This binding profile supports Fc-specific subclass-independent detection and highlights the utility of this Mouse IgG Antibody for ELISA / Fc-Specific Anti-Mouse IgG Detection Antibody for total IgG measurement in ELISA-based immunoassays.



Mouse IgG Antibody for ELISA Titration Curve. ELISA titration analysis using plates coated with serial dilutions of mouse IgG demonstrates strong, concentration-dependent binding of clone RM104 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 IgG / Ighg in ELISA-based immunoassays.

Description

Mouse immunoglobulin gamma (Ighg) encodes the heavy chain constant regions of IgG, the dominant antibody class in murine circulation and a central mediator of adaptive immune responses. Mouse IgG includes multiple subclasses such as IgG1, IgG2a, IgG2b, IgG2c, and IgG3, all of which share a conserved Fc region responsible for effector functions including complement activation and interaction with Fc receptors. Because IgG represents the primary class-switched antibody response in mice, it serves as a key indicator of established immunity in preclinical and experimental systems.

Mouse IgG Antibody for ELISA / Fc-Specific Anti-Mouse IgG Detection Antibody is specifically optimized for broad and selective detection of total mouse IgG across all subclasses in ELISA-based immunoassays. Mouse IgG antibody, also known as anti-Ighg antibody or mouse IgG immunoglobulin antibody, enables accurate quantification of IgG in serum, plasma, and cell culture samples derived from murine models. This recombinant rabbit monoclonal antibody clone RM104 recognizes the Fc region of mouse IgG, enabling uniform subclass-independent detection across IgG1, IgG2a, IgG2b, IgG2c, and IgG3 without bias toward Fab region variability.

In ELISA workflows, Fc-specific recognition provides a significant advantage by ensuring consistent signal generation across IgG subclasses and reducing variability associated with antigen-binding region differences. The Mouse IgG Antibody for ELISA / Fc-Specific Anti-Mouse IgG Detection Antibody functions effectively in ELISA formats to support precise and reproducible quantification of total IgG, making it well suited for antibody production monitoring, immune response analysis, and assay normalization in murine systems.

Clone RM104 antibody recognizes mouse IgG and does not cross-react with other mouse immunoglobulin classes such as IgM, IgA, or IgE, and shows no reactivity with human or rat IgG. Limited cross-reactivity with goat IgG may be observed under certain conditions. Importantly, the Fc region of RM104 has been engineered to eliminate Fc receptor binding, reducing non-specific interactions and improving assay specificity in complex biological samples. The recombinant rabbit monoclonal format provides high affinity binding, strong reproducibility, and minimal lot-to-lot variability, supporting consistent ELISA performance.

Detection of total mouse IgG is widely applied in immunology research, antibody development, and preclinical studies. Because IgG reflects class-switched immune responses and long-term immunity, accurate measurement provides insight into immune status, antibody production, and experimental outcomes in murine models. This antibody supports these applications by enabling robust and reproducible detection of Ighg-containing immunoglobulins in ELISA-based systems requiring high specificity, broad subclass coverage, and quantitative reliability.

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 IgG Antibody for ELISA / Fc-Specific Anti-Mouse IgG Detection Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

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

Storage

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

Alternate Names

Anti-mouse IgG ELISA antibody, Mouse IgG Fc antibody, Ighg detection antibody mouse, Mouse IgG detection antibody, pan-mouse IgG antibody