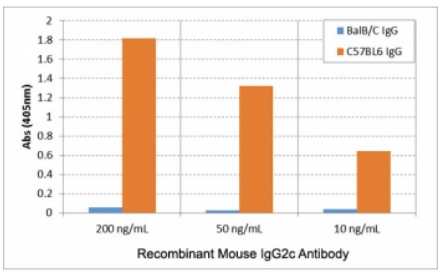
Mouse IgG2c Antibody for ELISA / Biotinylated Anti-Mouse IgG2c ELISA Detection Antibody [clone RM223] (R20171BTN)

Catalog No.	Formulation	Size
R20171BTN-50UG	1 mg/ml in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	50 ug

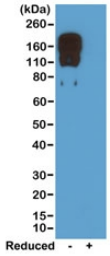
Recombinant RABBIT MONOCLONAL

Bulk quote request

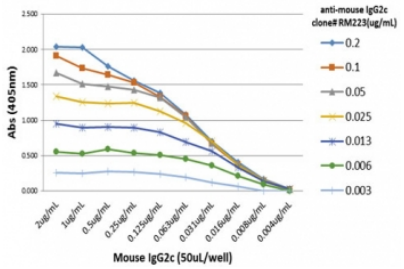
Availability	1-3 business days
Species Reactivity	Mouse
Format	Biotin Conjugate
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	RM223
Purity	Protein A purified from animal origin-free supernatant
UniProt	N/A
Gene ID	404711
Applications	ELISA: 0.01ug/ml-0.2ug/ml Western Blot (non-reduced only): 0.5-2ug/ml
Limitations	This Mouse IgG2c Antibody for ELISA / Biotinylated Anti-Mouse IgG2c ELISA Detection Antibody is available for research use only.



Mouse IgG2c Antibody Biotin ELISA Strain Specificity Analysis. ELISA analysis of mouse IgG from C57BL/6 and BALB/c strains demonstrates that the parent clone RM223 antibody selectively recognizes IgG2c present in C57BL/6 IgG, with strong signal observed across tested concentrations, while no reactivity is detected with BALB/c IgG containing IgG2a. This binding profile reflects selective recognition of IgG2c and clear discrimination from IgG2a, and is retained in the biotinylated format of the Mouse IgG2c Antibody for ELISA / Biotinylated Anti-Mouse IgG2c ELISA Detection Antibody.



Mouse IgG2c Antibody Biotin WB. Western blot analysis of non-reduced (-) and reduced (+) mouse IgG2c demonstrates that the parent clone RM223 antibody selectively detects intact IgG2c at approximately 150 kDa under non-reducing conditions, with minimal signal observed in the reduced sample. This binding pattern reflects Fc region-dependent recognition of native immunoglobulin structure and confirms specificity for mouse IgG2c. These results represent the intrinsic binding characteristics of clone RM223 and are retained in the biotinylated format of the Mouse IgG2c Antibody / Biotinylated Anti-Mouse IgG2c Detection Antibody.



Mouse IgG2c Antibody Biotin ELISA Titration Curve. ELISA titration using plates coated with serial dilutions of mouse IgG2c demonstrates strong, concentration-dependent binding of clone RM223 across a broad dynamic range. Signal intensity decreases proportionally with antibody dilution, confirming high sensitivity and consistent binding kinetics. Detection was performed using an alkaline phosphatase-conjugated anti-rabbit IgG secondary antibody. This titration profile reflects the intrinsic binding performance of the parent clone RM223 antibody and is representative of the characteristics retained in the biotinylated format of the Mouse IgG2c Antibody for ELISA / Biotinylated Anti-Mouse IgG2c ELISA Detection Antibody.

Description

Mouse immunoglobulin gamma 2c (IgG2c) is a functionally important IgG subclass that serves as the equivalent of IgG2a in certain mouse strains, including C57BL/6. In these strains, IgG2c replaces IgG2a due to genetic variation at the immunoglobulin heavy chain locus, yet retains similar structural and functional characteristics, including strong Fc receptor binding and complement activation. IgG2c is strongly associated with Th1-driven immune responses and is widely used as a marker of inflammatory and cell-mediated immunity. This strain-specific expression pattern makes accurate detection of IgG2c essential for correct interpretation of immune responses in commonly used experimental models.

Mouse IgG2c Antibody for ELISA / Biotinylated Anti-Mouse IgG2c ELISA Detection Antibody is engineered for enhanced sensitivity and subclass-specific detection in ELISA workflows utilizing streptavidin-based signal amplification systems. Mouse IgG2c antibody, also referred to as anti-IgG2c antibody or anti-mouse IgG2c subclass antibody, is widely used for detecting and quantifying IgG2c with high specificity. This biotinylated recombinant rabbit monoclonal antibody clone RM223 provides selective recognition of the mouse IgG2c constant region while enabling amplified signal generation for improved assay performance.

In sandwich ELISA configurations, biotinylated detection antibodies provide increased assay sensitivity and expanded dynamic range through streptavidin-mediated amplification. The Mouse IgG2c Antibody for ELISA / Biotinylated Anti-Mouse IgG2c ELISA Detection Antibody binds selectively to captured IgG2c, allowing accurate detection even at low analyte concentrations. This is particularly valuable in studies involving low-abundance antibody detection, immune profiling, and subclass-specific analysis in C57BL/6 and related mouse models where IgG2c is the dominant Th1-associated subclass.

Clone RM223 antibody targets the constant region of mouse IgG2c heavy chains, ensuring selective detection without cross-reactivity to other IgG subclasses including IgG1, IgG2a, IgG2b, and IgG3. The recombinant rabbit monoclonal format provides strong affinity, consistent performance, and reproducibility across ELISA platforms. Biotin conjugation enhances assay flexibility by enabling compatibility with streptavidin-HRP and streptavidin-AP detection systems commonly used in ELISA assays.

Measurement of IgG2c using biotinylated detection antibodies is widely applied in immunology research, vaccine development, and infection studies using C57BL/6 mice. Because IgG2c functions as the strain-specific counterpart to IgG2a, accurate and sensitive detection is critical for interpreting immune responses and avoiding subclass

misclassification. This antibody supports these applications by enabling sensitive and reliable detection of IgG2c immunoglobulins in ELISA-based systems requiring enhanced signal amplification, high specificity, and consistent assay performance.

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 IgG2c Antibody for ELISA / Biotinylated Anti-Mouse IgG2c ELISA Detection Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

Mouse IgG2c was used as the immunogen for this recombinant Mouse IgG2c antibody.

Storage

Store the recombinant Mouse IgG2c antibody at -20oC.

Alternate Names

Biotin anti-mouse IgG2c antibody, Biotinylated IgG2c detection antibody, Mouse IgG2c biotin ELISA antibody, Immunoglobulin G2c biotin antibody, IgG2c biotin detection antibody

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