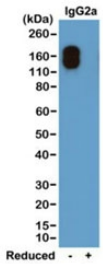
Mouse IgG2a-Kappa Antibody for ELISA Biotin Conjugate / Biotinylated Anti-Mouse IgG2a-Kappa ELISA Detection Antibody [clone RM107] (R20165BTN)

Catalog No.	Formulation	Size
R20165BTN-50UG	1 mg/ml in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	50 ug

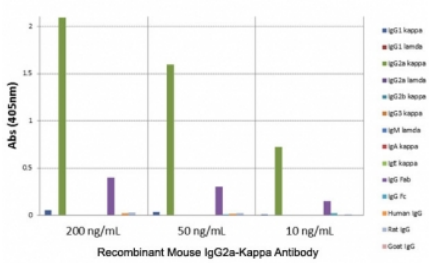
Recombinant RABBIT MONOCLONAL

Bulk quote request

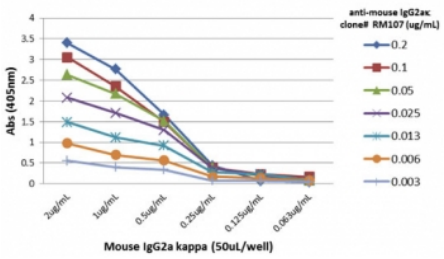
Availability	1-3 business days
Species Reactivity	Mouse
Format	Biotin Conjugate
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	RM107
Purity	Protein A purified from animal origin-free supernatant
UniProt	P01863
Gene ID	380793
Applications	ELISA: 0.005ug/ml-0.2ug/ml Western Blot (non-reduced only): 0.1-0.5ug/ml
Limitations	This Mouse IgG2a-Kappa Antibody for ELISA / Biotinylated Anti-Mouse IgG2a-Kappa ELISA Detection Antibody is available for research use only.



Mouse IgG2a-Kappa Antibody Biotin WB. Western blot analysis of non-reduced (-) and reduced (+) mouse IgG2a kappa (20 ng per lane) demonstrates that the parent clone RM107 antibody selectively detects intact IgG2a kappa at approximately 150 kDa under non-reducing conditions, with no detectable signal observed in the reduced sample. This pattern reflects Fab region-dependent recognition of native immunoglobulin structure and confirms specificity for mouse IgG2a kappa. These results represent the intrinsic binding characteristics of clone RM107 and are retained in the biotinylated format of the Mouse IgG2a-Kappa Antibody / Biotinylated Anti-Mouse IgG2a-Kappa Detection Antibody.



Mouse IgG2a-Kappa Antibody Biotin ELISA Fab Specificity Analysis. ELISA analysis of mouse immunoglobulins demonstrates that the parent clone RM107 antibody selectively recognizes Mouse IgG2a kappa, with strong signal observed for IgG2a kappa across tested concentrations. No cross-reactivity is detected with IgG2a lambda, IgG1, IgG3, IgM, IgA, or IgE, or with human, rat, or goat IgG. This binding profile reflects Fab region-directed specificity for kappa light chain-containing IgG2a and is retained in the biotinylated format of the Mouse IgG2a-Kappa Antibody for ELISA / Biotinylated Anti-Mouse IgG2a-Kappa ELISA Detection Antibody.



Mouse IgG2a-Kappa Antibody Biotin ELISA Titration Curve. ELISA titration using plates coated with serial dilutions of mouse IgG2a kappa demonstrates strong, concentration-dependent binding of clone RM107 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 RM107 antibody and is representative of the characteristics retained in the biotinylated format of the Mouse IgG2a-Kappa Antibody for ELISA / Biotinylated Anti-Mouse IgG2a-Kappa ELISA Detection Antibody.

Description

Mouse immunoglobulin gamma 2a (IgG2a) is a functionally important IgG subclass associated with Th1-type immune responses and characterized by strong effector activity, including Fc receptor engagement and complement activation. Within this subclass, antibodies exist as either kappa or lambda light chain variants, representing distinct molecular populations that can differ in origin, specificity, and functional context. Selective detection of IgG2a kappa antibodies provides an additional layer of resolution in immunological analysis and monoclonal antibody characterization.

Mouse IgG2a-Kappa Antibody for ELISA Biotin Conjugate / Biotinylated Anti-Mouse IgG2a-Kappa ELISA Detection Antibody is engineered for enhanced sensitivity and light chain-specific detection in ELISA workflows utilizing streptavidin-based signal amplification systems. Mouse IgG2a kappa antibody, also referred to as anti-IgG2a kappa antibody or IgG2a light chain-specific antibody, is widely used for detecting IgG2a kappa with high specificity. This biotinylated recombinant rabbit monoclonal antibody clone RM107 selectively recognizes the Fab region of mouse IgG2a kappa, enabling precise discrimination from lambda variants and other immunoglobulin classes.

In sandwich ELISA configurations, biotinylated detection antibodies provide increased assay sensitivity and expanded dynamic range through streptavidin-mediated amplification. The Mouse IgG2a-Kappa Antibody for ELISA / Biotinylated Anti-Mouse IgG2a-Kappa ELISA Detection Antibody binds selectively to captured IgG2a kappa, allowing accurate detection even at low analyte concentrations. Fab-directed recognition further enhances assay specificity by reducing Fc-associated background interactions, making this antibody particularly useful in applications such as hybridoma screening, monoclonal antibody development, and immune profiling.

Clone RM107 antibody targets the Fab region of mouse IgG2a kappa, ensuring selective detection without cross-reactivity to IgG2a lambda or other immunoglobulin subclasses. The Fc region has been engineered to eliminate Fc receptor binding, further reducing non-specific interactions and improving assay performance. The recombinant rabbit monoclonal format provides strong affinity, consistent performance, and reproducibility across ELISA platforms.

Measurement of IgG2a kappa antibodies is widely applied in immunology research, antibody engineering, and preclinical model systems where detailed antibody characterization is required. The ability to selectively detect kappa light chain-containing IgG2a improves resolution of antibody populations and supports accurate downstream analysis. This antibody supports these applications by enabling sensitive and selective detection of IgG2a kappa immunoglobulins in ELISA-based systems requiring enhanced specificity, reduced non-specific binding, and reliable signal amplification.

For detection of total mouse kappa light chain, see our Recombinant Mouse IgG2a-Kappa Antibody RM103 page.

Application Notes

The stated application concentrations are suggested starting points. Titration of the Mouse IgG2a-Kappa Antibody for ELISA / Biotinylated Anti-Mouse IgG2a-Kappa ELISA Detection Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

Mouse IgG was used as the immunogen for this biotinylated recombinant Mouse IgG2a-Kappa antibody.

Storage

Store the recombinant Mouse IgG2a-Kappa antibody at -20oC.

Alternate Names

Biotin anti-mouse IgG2a kappa antibody, Biotinylated IgG2a kappa detection antibody, Mouse IgG2a kappa biotin ELISA antibody, IgG2a kappa biotin antibody, IgG2a kappa Fab biotin antibody

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