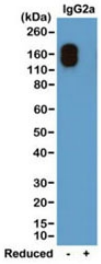
Mouse IgG2a-Kappa Antibody for ELISA / Anti-Mouse IgG2a-Kappa ELISA Detection Antibody [clone RM107] (R20165)

Catalog No.	Formulation	Size
R20165-100UG	1 mg/ml in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	100 ug

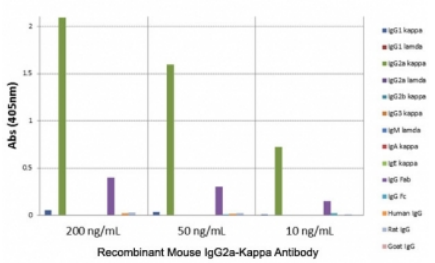
Recombinant RABBIT MONOCLONAL

Bulk quote request

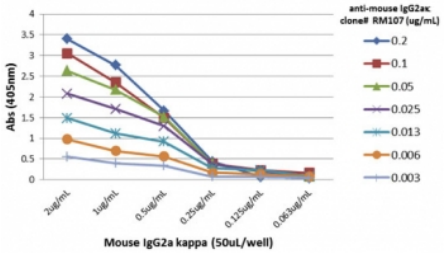
Availability	1-3 business days
Species Reactivity	Mouse
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	RM107
Purity	Protein A purified from animal origin-free supernatant
UniProt	P01863
Gene ID	380793
Applications	ELISA: 0.005ug/ml-0.2ug/ml Western Blot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



Mouse IgG2a-Kappa Antibody for WB. Western blot analysis of non-reduced (-) and reduced (+) mouse IgG2a kappa (20 ng per lane) using clone RM107 at 0.2 ug/mL demonstrates selective detection of the intact IgG2a kappa molecule at approximately 150 kDa under non-reducing conditions, with no detectable signal observed in the reduced sample. This binding pattern is consistent with Fab region-directed recognition requiring native immunoglobulin structure and confirms specificity for mouse IgG2a kappa. These results support the use of this Mouse IgG2a-Kappa Antibody / Anti-Mouse IgG2a-Kappa Detection Antibody for selective detection of IgG2a kappa in immunoassay applications.



Mouse IgG2a-Kappa Antibody for ELISA Fab Specificity Analysis. ELISA analysis of mouse immunoglobulins demonstrates that clone RM107 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. The binding profile is consistent with Fab region-directed recognition and confirms selective detection of kappa light chain-containing IgG2a. These results support the use of this Mouse IgG2a-Kappa Antibody for ELISA / Anti-Mouse IgG2a-Kappa ELISA Detection Antibody for highly specific detection in ELISA-based immunoassays.



Mouse IgG2a-Kappa Antibody for ELISA Titration Curve. ELISA titration analysis 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 performance. Detection was performed using an alkaline phosphatase-conjugated anti-rabbit IgG secondary antibody, supporting reliable quantification of Mouse IgG2a kappa in ELISA-based immunoassays.

Description

Mouse immunoglobulin gamma 2a (IgG2a) is a major IgG subclass in murine systems associated with Th1-driven immune responses and characterized by strong effector functions including Fc receptor engagement and complement activation. Within this subclass, antibodies are further defined by their light chain composition, existing as either kappa or lambda variants. The ability to distinguish between these light chain forms is critical in applications such as monoclonal antibody development, hybridoma screening, and detailed immune profiling, where antibody origin and clonality must be precisely defined.

Mouse IgG2a-Kappa Antibody for ELISA / Anti-Mouse IgG2a-Kappa ELISA Detection Antibody is specifically optimized for high-sensitivity and light chain-restricted detection of IgG2a kappa antibodies in ELISA-based immunoassays. Mouse IgG2a kappa antibody, also known as anti-IgG2a kappa antibody or IgG2a light chain-specific antibody, enables selective detection of IgG2a molecules containing kappa light chains while excluding lambda variants. This recombinant rabbit monoclonal antibody clone RM107 recognizes the Fab region of mouse IgG2a kappa, providing dual specificity at both the subclass and light chain level and enabling precise discrimination within complex antibody populations.

In ELISA workflows, Fab-directed detection offers a distinct advantage by targeting the antigen-binding region rather than the Fc domain, reducing interference from Fc-mediated interactions and improving assay specificity. The Mouse IgG2a-Kappa Antibody for ELISA / Anti-Mouse IgG2a-Kappa ELISA Detection Antibody functions effectively as a detection reagent in sandwich ELISA formats, binding selectively to IgG2a kappa captured on assay plates while minimizing background from IgG2a lambda and other immunoglobulin classes. This level of specificity is particularly valuable in hybridoma screening, monoclonal antibody validation, and studies requiring precise light chain characterization.

Clone RM107 antibody targets the Fab region of mouse IgG2a kappa, ensuring selective recognition of the kappa light chain-associated antigen-binding domain without cross-reactivity to lambda-containing IgG2a. In addition, the Fc region of this antibody has been engineered to eliminate Fc receptor binding, further reducing non-specific interactions and enhancing performance in ELISA systems. The recombinant rabbit monoclonal format provides high affinity binding, excellent reproducibility, and minimal lot-to-lot variability.

Detection of IgG2a kappa antibodies is widely applied in immunology research, monoclonal antibody development, and preclinical studies using murine models. Selective identification of kappa light chain-containing antibodies enables more accurate characterization of antibody populations and supports downstream applications requiring precise antibody selection. This antibody supports these applications by enabling robust and selective measurement of IgG2a kappa immunoglobulins in ELISA-based systems requiring high specificity, reduced background, and reliable detection

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 IgG2a-Kappa Antibody for ELISA / 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 recombinant Mouse IgG2a-Kappa antibody.

Storage

Store the recombinant Mouse IgG2a-Kappa antibody at -20oC (with glycerol) or aliquot and store at -20oC (without glycerol).

Alternate Names

Anti-Mouse IgG2a kappa ELISA antibody, Mouse IgG2a kappa detection antibody, IgG2a kappa ELISA antibody, Mouse IgG2a light chain specific antibody, IgG2a kappa Fab antibody

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