

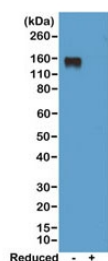
Recombinant Mouse IgG2a Antibody [clone RM219] (R20166)

Catalog No.	Formulation	Size
R20166-100UG	1 mg/ml in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	100 ug

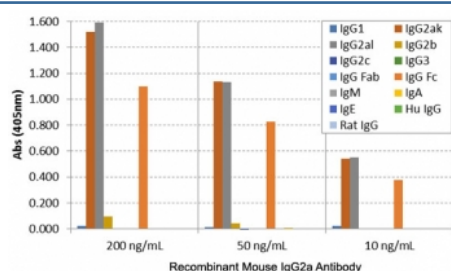
Recombinant **RABBIT MONOCLONAL**

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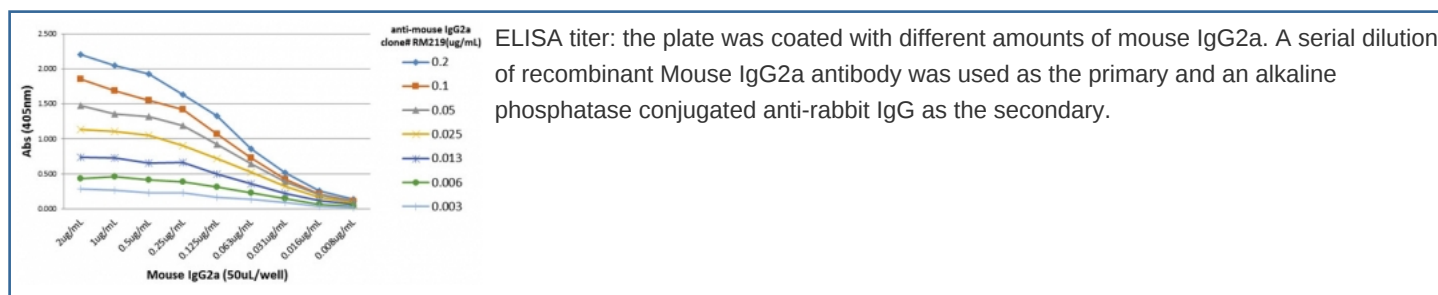
Availability	1-3 business days
Species Reactivity	Mouse
Format	Purified
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	RM219
Purity	Protein A purified from animal origin-free supernatant
UniProt	P01863
Gene ID	380793
Applications	ELISA : 0.005ug/ml-0.2ug/ml Western Blot (non-reduced Only) : 0.5-2ug/ml
Limitations	This recombinant Mouse IgG2a antibody is available for research use only.



Western blot of nonreduced(-) and reduced(+) mouse IgG2a, using 0.5ug/ml of recombinant Mouse IgG2a antibody. This mAb reacts to nonreduced IgG2a (~150 kDa).



ELISA of mouse immunoglobulins shows the recombinant Mouse IgG2a antibody reacts to the Fc region of mIgG2a; no cross reactivity with IgG1, IgG2b, IgG2c, IgG3, IgM, IgA, IgE, human/rat IgG.



Description

The Recombinant Mouse IgG2a antibody is engineered as a well characterized immunoglobulin reagent used for isotype controls and assay standardization. In mice, IgG2a represents an important subclass of IgG that is highly effective in immune defense. Its heavy chain constant region endows it with strong affinity for Fc gamma receptors and complement proteins, making IgG2a a powerful mediator of effector functions such as antibody dependent cellular cytotoxicity and complement dependent cytolysis. Recombinant Mouse IgG2a antibodies replicate these structural features but lack antigen specific variable domains, providing an ideal reference for background detection in immunoassays.

Structurally, IgG2a consists of two heavy and two light chains forming the classic immunoglobulin fold. The Fc portion binds with high avidity to activating Fc gamma receptors expressed on natural killer cells, macrophages, and neutrophils, enabling potent immune responses. In a research context, the Recombinant Mouse IgG2a antibody preserves these Fc mediated properties while avoiding specific antigen recognition, ensuring that any observed binding in an experiment reflects nonspecific interactions.

This reagent is widely applied in flow cytometry, where the Recombinant Mouse IgG2a antibody is critical for setting baseline fluorescence and distinguishing true antigen binding from Fc receptor mediated interactions. In immunohistochemistry, it helps reveal background staining in tissue sections, particularly where macrophages or other Fc receptor bearing cells are abundant. In ELISA, it provides a reliable negative control for plate based assays, helping researchers interpret subtle signal differences with confidence. Recombinant production ensures lot to lot uniformity, overcoming variability that may arise with traditional hybridoma derived controls.

Beyond serving as a control, the Recombinant Mouse IgG2a antibody can also function in method development, allowing optimization of antibody concentrations, incubation times, and detection systems without consuming valuable antigen specific reagents. Synonym phrases such as recombinant mouse immunoglobulin G2a antibody and recombinant IgG2a isotype control antibody extend accessibility for investigators searching under alternate terminology.

By delivering reproducible and validated performance, the Recombinant Mouse IgG2a antibody enhances the reliability of antibody based experiments. NSJ Bioreagents provides this control reagent with stringent quality standards, ensuring consistency across multiple assay platforms. Through its use, researchers can confidently differentiate true antigen specific results from background noise, advancing both basic and translational studies.

This recombinant Mouse IgG2a antibody reacts to the Fc region of mIgG2a. No cross reactivity with mouse IgG1, IgG2b, IgG2c, IgG3, IgM, IgA, IgE, human/rat IgG.

Application Notes

The stated application concentrations are suggested starting points. Titration of the recombinant Mouse IgG2a antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

Mouse IgG2a was used as the immunogen for this recombinant Mouse IgG2a antibody.

Storage

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