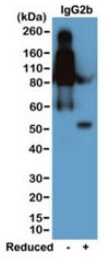
Recombinant Mouse IgG2b Antibody [clone RM108] (R20167)

Catalog No.	Formulation	Size
R20167-100UG	1 mg/ml in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	100 ug

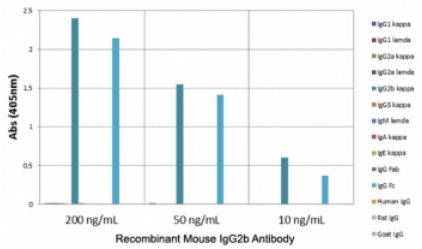
Recombinant RABBIT MONOCLONAL

Bulk quote request

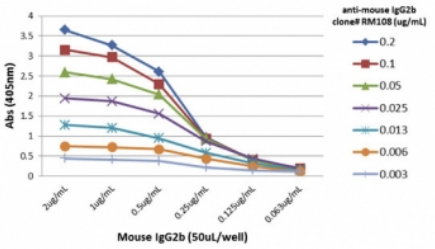
Availability	1-3 business days
Species Reactivity	Mouse
Format	Purified
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	RM108
Purity	Protein A purified from animal origin-free supernatant
UniProt	P01867
Gene ID	16016
Applications	ELISA : 0.005ug/ml-0.2ug/ml Western Blot (stronger On Non-reduced Samples) : 0.1-0.5ug/ml
Limitations	This recombinant Mouse IgG2b antibody is available for research use only.



Western blot of nonreduced(-) and reduced(+) mouse IgG2b (20ng/lane), using 0.2ug/ml of the recombinant Mouse IgG2b antibody. This antibody reacts to nonreduced IgG2b (~150 kDa) much stronger than the reduced form (~50 kDa).



ELISA of mouse immunoglobulins shows the recombinant Mouse IgG2b antibody reacts to the Fc region of mIgG2b; no cross reactivity with IgG1, IgG2a, IgG3, IgM, IgA, IgE, human/rat/goat IgG.



ELISA titer: the plate was coated with different amounts of mouse IgG2b. A serial dilution of recombinant Mouse IgG2b antibody was used as the primary and an alkaline phosphatase conjugated anti-rabbit IgG as the secondary.

Description

The Recombinant Mouse IgG2b antibody is produced as a recombinant isotype control designed for immunoassays requiring precise discrimination between specific and nonspecific signals. Mouse IgG2b is a versatile subclass of IgG that participates in immune defense by binding complement proteins and engaging Fc gamma receptors. Its unique heavy chain constant region defines effector properties that distinguish it from IgG1, IgG2a, and IgG3. Recombinant Mouse IgG2b antibodies are engineered to reproduce these structural features while eliminating antigen binding capacity, providing a dependable baseline for negative control.

The IgG2b molecule is composed of two heavy and two light chains linked by disulfide bonds, forming the characteristic Y shaped immunoglobulin. The Fc portion mediates interactions with both activating and inhibitory Fc gamma receptors, giving IgG2b a balanced role in immune regulation. This interaction profile is preserved in the Recombinant Mouse IgG2b antibody, making it useful for identifying nonspecific binding in assays where Fc receptor engagement could contribute to background signal.

In flow cytometry, the Recombinant Mouse IgG2b antibody serves as a negative control for fluorescence detection, allowing researchers to set gates and quantify background staining. In immunohistochemistry, it highlights nonspecific binding within tissues containing Fc receptor positive cells. In ELISA, it provides a standard for evaluating assay specificity and ensuring that observed signals arise from antigen antibody interactions rather than nonspecific adherence. Recombinant expression guarantees consistent performance across production lots, minimizing experimental variability.

The Recombinant Mouse IgG2b antibody is also employed in assay development and optimization, where it can substitute for test antibodies to refine protocols without wasting antigen specific reagents. Synonym phrases such as recombinant mouse immunoglobulin G2b antibody and recombinant IgG2b isotype control antibody increase discoverability by users who reference alternate names.

By offering validated and reproducible detection, the Recombinant Mouse IgG2b antibody enhances data accuracy across immunological research. NSJ Bioreagents ensures quality and consistency in its Recombinant Mouse IgG2b antibody, providing scientists with a reliable tool to establish specificity in flow cytometry, immunohistochemistry, and ELISA.

This recombinant Mouse IgG2b antibody reacts to the Fc region of mIgG2b. No cross reactivity with IgG1, IgG2a, IgG3, IgM, IgA, IgE, human/rat/goat IgG.

Application Notes

The stated application concentrations are suggested starting points. Titration of the recombinant Mouse IgG2b antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

Mouse IgG2b was used as the immunogen for this recombinant Mouse IgG2b antibody.

Storage

Store the recombinant Mouse IgG2b antibody at -20oC (with glycerol) or aliquot and store at -20oC (without glycerol).