Recombinant Mouse IgA Antibody [clone RM220] (R20169)

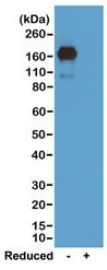
Catalog No.	Formulation	Size
R20169-100UG	1 mg/ml in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	100 ug

Recombinant RABBIT MONOCLONAL

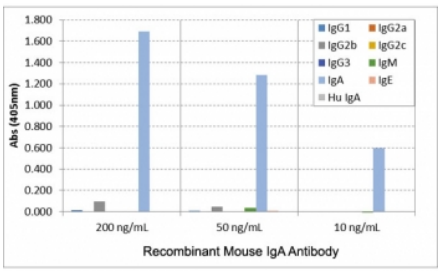
Citations (2)

Bulk quote request

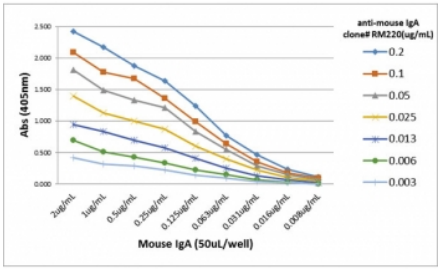
Availability	1-3 business days
Species Reactivity	Mouse
Format	Purified
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	RM220
Purity	Protein A purified from animal origin-free supernatant
UniProt	P01878
Gene ID	238447
Applications	ELISA : 0.005ug/ml-0.2ug/ml Western Blot (non-reduced Only) : 0.5-2ug/ml
Limitations	This recombinant Mouse IgA antibody is available for research use only.



Western blot of nonreduced(-) and reduced(+) mouse IgA, using 0.5ug/mL of recombinant Mouse IgA antibody. This antibody reacts to nonreduced IgA.



ELISA of mouse immunoglobulins shows the recombinant Mouse IgA antibody reacts to mIgA. No cross reactivity with IgG1, IgG2a, IgG2b, IgG2c, IgG3, IgM, IgE, or human IgA.



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

Description

The Recombinant Mouse IgA antibody is designed as a reference reagent and isotype control for immunoassays, reflecting the structural and functional properties of mouse immunoglobulin A. IgA is a key component of the mucosal immune system, serving as the first line of defense at surfaces such as the respiratory tract, gastrointestinal tract, and urogenital tract. In mice, IgA is secreted in polymeric form and plays a central role in neutralizing pathogens and maintaining microbiome balance. The Recombinant Mouse IgA antibody replicates the architecture of this subclass while lacking antigen specificity, making it an essential reagent for detecting nonspecific binding and establishing assay thresholds.

Structurally, mouse IgA is composed of two heavy chains and two light chains forming a Y shaped immunoglobulin, often linked by a joining (J) chain to generate dimeric IgA. This configuration allows transport across epithelial barriers and secretion into mucosal fluids. The Fc portion of IgA engages specific receptors such as FcÃŽÂ±RI, mediating effector functions including phagocytosis and immune exclusion. The Recombinant Mouse IgA antibody preserves these structural features, enabling it to mimic native antibody interactions while serving as a negative control in experimental systems.

In laboratory research, the Recombinant Mouse IgA antibody is widely applied in flow cytometry, immunohistochemistry, and ELISA. In flow cytometry, it establishes baseline fluorescence and reveals nonspecific binding to FcÃŽÂ± receptors. In tissue staining, it identifies background reactivity in mucosal or lymphoid tissues rich in IgA binding sites. In ELISA, the Recombinant Mouse IgA antibody provides a control to distinguish between true antigen antibody interactions and nonspecific adherence. Because it is recombinant, the reagent delivers consistent performance across production lots, overcoming variability associated with hybridoma derived preparations.

This antibody is also useful in method development, serving as a substitute reagent when optimizing detection systems or blocking protocols. Its ability to replicate the Fc mediated properties of IgA makes it valuable for studies involving mucosal immunology, vaccine responses, and host pathogen interactions. Synonym phrases such as recombinant mouse immunoglobulin A antibody and recombinant IgA isotype control antibody expand search coverage for users seeking equivalent products.

By providing validated and reproducible detection, the Recombinant Mouse IgA antibody ensures accurate interpretation of immunoassays and enhances reliability of experimental results. NSJ Bioreagents validates the Recombinant Mouse IgA antibody for use across multiple applications, giving researchers confidence in their negative control design. With this reagent, scientists can reliably investigate mucosal immunity and improve the specificity of their assays.

This recombinant Mouse IgA antibody specifically reacts to mIgA. No cross reactivity with IgG1, IgG2a, IgG2b, IgG2c, IgG3, IgM, IgE, or human IgA.

Application Notes

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

Immunogen

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

Storage

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

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