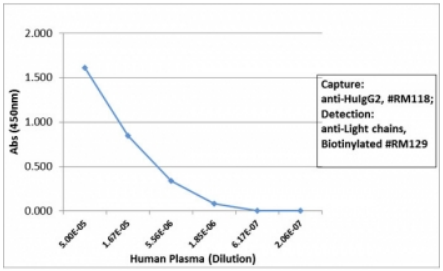
Recombinant Human IgG2 Antibody [clone RM118] (R20188)

Catalog No.	Formulation	Size
R20188-100UG	1 mg/ml in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	100 ug

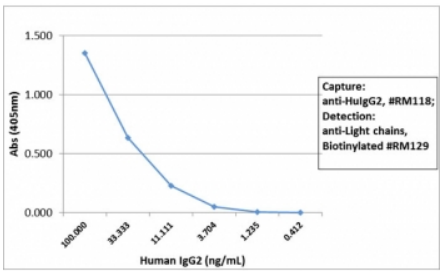
Recombinant RABBIT MONOCLONAL

Bulk quote request

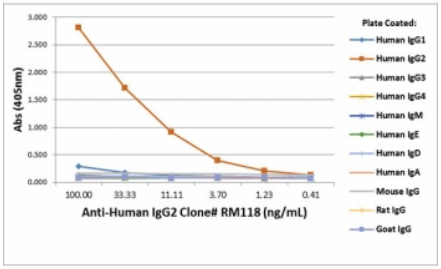
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	RM118
Purity	Protein A purified from animal origin-free supernatant
UniProt	P01859
Gene ID	3501
Applications	ELISA : 50ng/well-200ng/well (Capture); 0.05-0.2ug/ml (Detection)
Limitations	This recombinant Human IgG2 antibody is available for research use only.



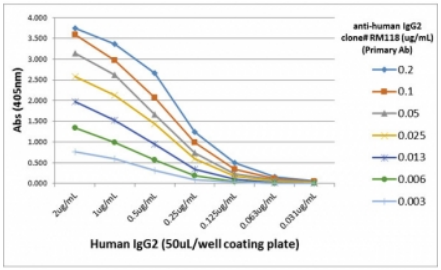
Sandwich ELISA with human plasma using recombinant Human IgG2 antibody as the capture, and biotinylated anti-human light chains (?+?) antibody RM129 as the detect, followed by an AP conjugated streptavidin.



Sandwich ELISA with human IgG2 using recombinant Human IgG2 antibody as the capture, and biotinylated anti-human light chains (?+?) antibody RM129 as the detect, followed by an AP conjugated streptavidin.



ELISA of human immunoglobulins shows recombinant Human IgG2 antibody only reacted to hIgG2. No cross reactivity with IgG1, IgG3, IgG4, IgE, IgD, IgA, mouse/rat/goat IgG.



ELISA Titration: the plate was coated with different amounts of human IgG2. A serial dilution of recombinant Human IgG2 antibody was used as the primary and an alkaline phosphatase conjugated anti-rabbit IgG as the secondary.

Description

The Recombinant Human IgG2 antibody is produced as a recombinant reagent designed to replicate the constant region structure of human immunoglobulin G2. IgG2 is the second most abundant IgG subclass in serum and is particularly effective at responding to carbohydrate and polysaccharide antigens. Its Fc region interacts with Fc gamma receptors and complement proteins, though less efficiently than IgG1. The Recombinant Human IgG2 antibody is engineered without antigen specificity, making it an indispensable isotype control and reference reagent for antibody based assays.

Structurally, IgG2 is composed of two heavy and two light chains linked by disulfide bonds. It shares the same overall Y shaped architecture as other IgG subclasses, but its hinge region contains unique disulfide arrangements that influence flexibility and effector function. Compared with IgG1, IgG2 has reduced ability to trigger antibody dependent cellular cytotoxicity but remains effective in neutralizing bacterial polysaccharides. The Recombinant Human IgG2 antibody preserves these subclass specific constant region features while lacking variable region specificity, ensuring that experimental signals reflect background rather than true antigen binding.

In research applications, the Recombinant Human IgG2 antibody is widely used in ELISA as a negative control, verifying that assay signals are derived from antigen specific interactions. In flow cytometry, it provides a baseline for fluorescence and helps detect nonspecific Fc receptor binding. In immunohistochemistry and immunofluorescence, the Recombinant Human IgG2 antibody highlights background staining, particularly in tissues with Fc receptor positive cell populations. Recombinant expression guarantees batch to batch consistency, avoiding the variability that may arise with hybridoma derived controls.

This reagent is particularly valuable in vaccine research, since IgG2 is a key mediator of protective responses against encapsulated bacteria. By including the Recombinant Human IgG2 antibody as an isotype control, researchers ensure that conclusions about antigen specific immunity are based on accurate comparisons. It is also valuable in assay optimization, where it substitutes for experimental antibodies during validation of blocking and detection systems. Synonym phrases such as recombinant human immunoglobulin G2 antibody and recombinant IgG2 isotype control antibody expand accessibility for investigators referencing alternate nomenclature.

By delivering validated and reproducible detection, the Recombinant Human IgG2 antibody strengthens the accuracy and reliability of immunoassay results. NSJ Bioreagents provides the Recombinant Human IgG2 antibody with rigorous quality control, giving scientists confidence in its performance across ELISA, flow cytometry, and tissue based applications. With this reagent, researchers can reliably differentiate specific antigen responses from background signals, supporting both basic and translational immunology.

This recombinant Human IgG2 antibody reacts to the heavy chain of human IgG2. No cross reactivity with IgG1, IgG3, IgG4, IgM, IgA, IgD, IgE, mouse/rat/goat IgG.

Application Notes

The stated application concentrations are suggested starting points. Titration of the recombinant Human IgG2 antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

Human IgG2 was used as the immunogen for this recombinant Human IgG2 antibody.

Storage

Store the recombinant Human IgG2 antibody at -20oC (with glycerol) or aliquot and store at -20oC (without glycerol).

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