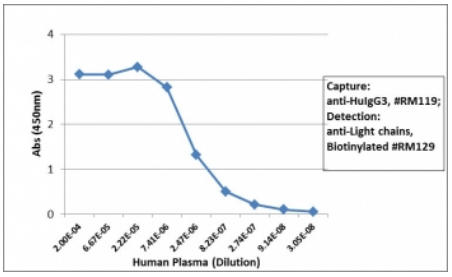
Human IgG3 Antibody for ELISA / Anti-Human IgG3 ELISA Detection Antibody [clone RM119] (R20189)

Catalog No.	Formulation	Size
R20189-100UG	1 mg/ml in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	100 ug

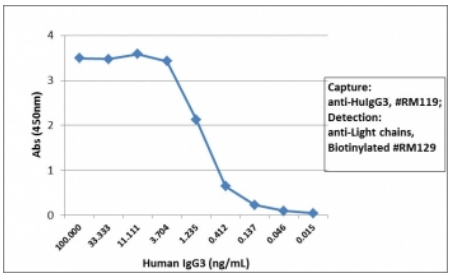
Recombinant RABBIT MONOCLONAL

Bulk quote request

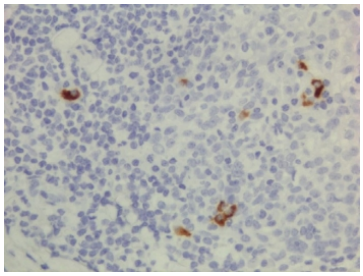
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	RM119
Purity	Protein A purified from animal origin-free supernatant
UniProt	P01860
Gene ID	3502
Applications	ELISA: 50ng/well-200ng/well (Capture); 0.05-0.2ug/ml (Detection) Immunocytochemistry: 0.5-2ug/ml Immunohistochemistry: 0.5-2ug/ml
Limitations	This Human IgG3 Antibody for ELISA / Anti-Human IgG3 ELISA Detection Antibody is available for research use only.



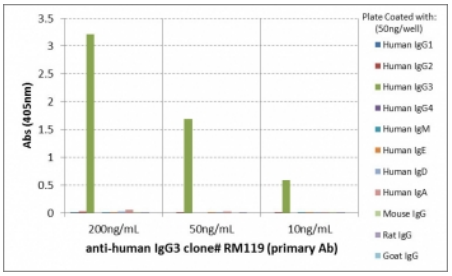
Human IgG3 Antibody for ELISA Sandwich ELISA Human Plasma. Sandwich ELISA using human plasma demonstrates that clone RM119 functions effectively as a capture antibody for Human IgG3 / IGHG3, with signal intensity decreasing proportionally with sample dilution, indicating robust and concentration-dependent detection. Captured IgG3 was detected using a biotinylated anti-human light chains (kappa + lambda) antibody (clone RM129), followed by alkaline phosphatase-conjugated streptavidin for signal development. The assay configuration supports reliable quantification of IgG3 in complex biological samples and highlights the utility of this Human IgG3 Antibody for ELISA / Anti-Human IgG3 ELISA Detection Antibody in sandwich ELISA-based immunoglobulin measurement.



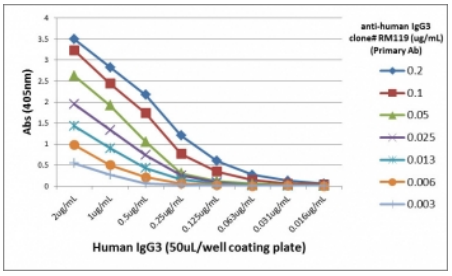
Human IgG3 Antibody for ELISA Sandwich ELISA Human IgG3. Sandwich ELISA using purified human IgG3 demonstrates that clone RM119 functions effectively as a capture antibody for Human IgG3 / IGHG3, with signal intensity decreasing proportionally with antigen concentration, indicating strong and concentration-dependent detection. Captured IgG3 was detected using a biotinylated anti-human light chains (kappa + lambda) antibody (clone RM129), followed by alkaline phosphatase-conjugated streptavidin for signal development. This assay configuration supports accurate quantification of IgG3 and highlights the utility of this Human IgG3 Antibody for ELISA / Anti-Human IgG3 ELISA Detection Antibody in sandwich ELISA-based immunoassays.



Human IgG3 Antibody Immunohistochemistry Human Lymphoid Tissue. Immunohistochemistry analysis of FFPE human lymphoid tissue using Human IgG3 Antibody / Anti-Human IgG3 Detection Antibody (clone RM119) demonstrates scattered cytoplasmic staining in lymphoid cells consistent with immunoglobulin-producing cell populations, while surrounding cells remain largely negative. This staining pattern reflects detection of IgG3 / IGHG3 within antibody-secreting cells and supports the use of this antibody for identifying IgG3-expressing cell populations in tissue sections. Heat-induced epitope retrieval was performed using either pH6 citrate buffer or pH9 Tris-EDTA buffer prior to antibody incubation.



Human IgG3 Antibody for ELISA Subclass Specificity Analysis. ELISA analysis of human immunoglobulins demonstrates that clone RM119 selectively recognizes Human IgG3, with strong signal observed across tested concentrations. No cross-reactivity is detected with IgG1, IgG2, or IgG4, or with other immunoglobulin classes including IgM, IgA, IgD, and IgE, or with mouse, rat, or goat IgG. The binding profile is consistent with heavy chain-directed recognition and supports highly specific detection of IgG3 in ELISA-based immunoassays. These results support the use of this Human IgG3 Antibody for ELISA / Anti-Human IgG3 ELISA Detection Antibody for precise subclass-specific detection.



Human IgG3 Antibody for ELISA Titration Curve. ELISA titration analysis using plates coated with serial dilutions of human IgG3 demonstrates strong, concentration-dependent binding of clone RM119 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 Human IgG3 in ELISA-based immunoassays.

Description

Human immunoglobulin gamma 3 (IGHG3) encodes the heavy chain constant region of IgG3, a subclass distinguished by its extended hinge region and exceptionally strong effector function. Among all human IgG subclasses, IgG3 exhibits the highest capacity for complement activation through efficient C1q binding and strong Fc receptor engagement, making it a primary mediator of antibody-dependent cellular cytotoxicity and inflammatory immune responses. IgG3 is typically produced early during immune responses to protein antigens and plays a critical role in rapid pathogen clearance and immune activation.

Human IgG3 Antibody for ELISA / Anti-Human IgG3 ELISA Detection Antibody is specifically optimized for high-sensitivity and subclass-specific detection of IgG3 in ELISA-based immunoassays. Human IgG3 antibody, also known as anti-IGHG3 antibody or anti-human IgG3 subclass antibody, is widely used to quantify IgG3 responses and to distinguish IgG3 from other human IgG subclasses such as IgG1, IgG2, and IgG4, which differ significantly in effector function and immune role. This recombinant rabbit monoclonal antibody clone RM119 recognizes the heavy chain of human IgG3, enabling highly specific detection of the subclass independent of light chain composition.

In ELISA workflows, heavy chain-directed detection provides a robust and broadly applicable strategy for measuring total IgG3 levels across diverse sample types, including serum, plasma, and cell culture supernatants. The Human IgG3 Antibody for ELISA / Anti-Human IgG3 ELISA Detection Antibody functions effectively as a detection reagent in sandwich ELISA formats, binding specifically to IgG3 captured on assay plates while minimizing background from other immunoglobulin subclasses. This specificity is particularly important in applications where subclass distribution reflects immune activation state and functional antibody potency.

Clone RM119 antibody targets the constant region of human IgG3 heavy chains, ensuring selective detection without cross-reactivity to other IgG subclasses including IgG1, IgG2, and IgG4, or to other immunoglobulin classes such as IgM, IgA, IgD, and IgE. The recombinant rabbit monoclonal format provides high affinity binding, excellent reproducibility, and minimal lot-to-lot variability, supporting consistent ELISA performance. The Human IgG3 Antibody for ELISA / Anti-Human IgG3 ELISA Detection Antibody is particularly well suited for quantitative immunoassays requiring precise subclass resolution and reliable signal generation.

Detection of IgG3 is widely applied in immunology research, infectious disease studies, and vaccine development, where strong effector function and complement activation are key features of protective immunity. Because IgG3 is often associated with early and highly functional antibody responses, accurate measurement provides important insight into immune activation kinetics and antibody-mediated defense mechanisms. This antibody supports these applications by enabling robust and reproducible detection of IGHG3-containing immunoglobulins in ELISA-based systems requiring high specificity, sensitivity, and consistent 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 Human IgG3 Antibody for ELISA / Anti-Human IgG3 ELISA Detection Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

Human IgG3 was used as the immunogen for this recombinant Human IgG3 antibody.

Storage

Store the recombinant Human IgG3 antibody at -20oC (with glycerol) or aliquot and store at -20oC (without glycerol).

Alternate Names

Anti-Human IgG3 ELISA antibody, Human IgG3 detection antibody, IgG3 ELISA detection antibody, Immunoglobulin G3 ELISA antibody, Human IgG3 Fc antibody

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