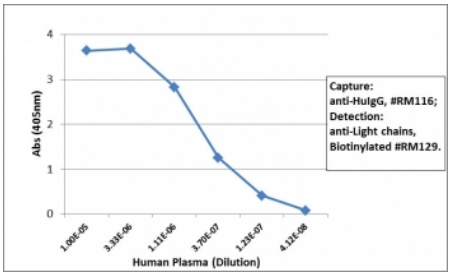
Human IgG Antibody for ELISA / Anti-Human IgG Detection Antibody [clone RM116] (R20177)

Catalog No.	Formulation	Size
R20177-100UG	1 mg/ml in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	100 ug

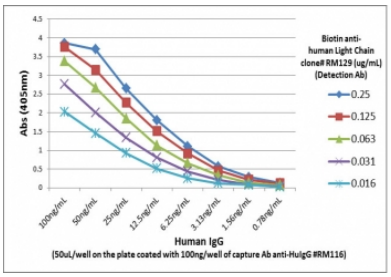
Recombinant RABBIT MONOCLONAL

Bulk quote request

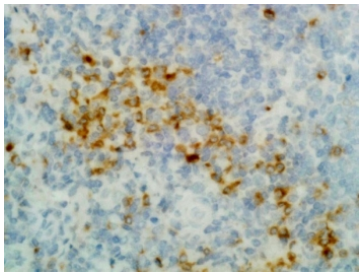
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	RM116
Purity	Protein A purified from animal origin-free supernatant
UniProt	P01857, P01859, P01860, P01861
Gene ID	3500, 3501, 3502, 3503
Applications	ELISA : 50ng/well-200ng/well (Capture); 0.05-0.2ug/ml (Detection) Immunocytochemistry : 0.5-2ug/ml Immunohistochemistry : 0.5-2ug/ml (1)
Limitations	This Human IgG Antibody for ELISA / Anti-Human IgG Detection Antibody is available for research use only.



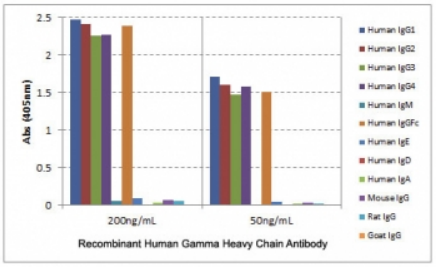
Human IgG Antibody for ELISA Sandwich ELISA Human Plasma. Sandwich ELISA analysis demonstrates that clone RM116 functions effectively as a capture antibody for Human IgG / IGHG, with signal intensity decreasing proportionally with plasma dilution, indicating robust and concentration-dependent detection. Captured IgG 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 supports reliable detection of total IgG in plasma and highlights the utility of this Human IgG Antibody for ELISA / Anti-Human IgG Detection Antibody in quantitative ELISA-based immunoassays.



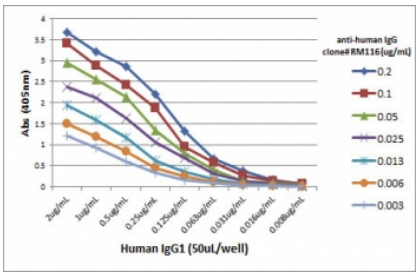
Human IgG Antibody for ELISA Sandwich ELISA Human IgG. Sandwich ELISA analysis using purified human IgG demonstrates that clone RM116 functions effectively as a capture antibody for Human IgG / IGHG, with signal intensity decreasing proportionally with antigen concentration, indicating strong and concentration-dependent detection. Captured IgG 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 total IgG and highlights the utility of this Human IgG Antibody for ELISA / Anti-Human IgG Detection Antibody in sandwich ELISA-based immunoassays.



Human IgG Antibody IHC Human Tonsil Tissue. Immunohistochemistry analysis of FFPE human tonsil using Human IgG Antibody / Anti-Human IgG Detection Antibody (clone RM116) demonstrates cytoplasmic staining in scattered plasma cells and B cell-rich areas within the lymphoid tissue, while surrounding stromal cells remain largely negative. The staining pattern supports detection of IgG / IGHG within antibody-producing cells and reflects broad recognition of IgG across subclasses in tissue sections. Heat-induced epitope retrieval was performed using a standard buffer prior to antibody incubation.



Human IgG Antibody for ELISA Subclass Specificity Analysis. ELISA analysis of human immunoglobulins demonstrates that clone RM116 selectively recognizes Human IgG / IGHG, with strong signal observed for IgG1, IgG2, IgG3, and IgG4 heavy chains as well as the Fc region of IgG across tested concentrations. No cross-reactivity is detected with other immunoglobulin heavy chains or with mouse, rat, or goat IgG. This binding profile supports broad subclass coverage and highlights the utility of this Human IgG Antibody for ELISA / Anti-Human IgG Detection Antibody for total IgG detection in ELISA-based immunoassays.



Human IgG Antibody for ELISA Titration Curve. ELISA titration analysis using plates coated with serial dilutions of human IgG1 demonstrates strong, concentration-dependent binding of clone RM116 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 IgG / IGHG in ELISA-based immunoassays.

Description

Human immunoglobulin gamma (IGHG) encodes the heavy chain constant regions of IgG, the most abundant immunoglobulin class in circulation and a central mediator of humoral immunity. IgG accounts for the majority of serum immunoglobulin and is composed of multiple subclasses including IgG1, IgG2, IgG3, and IgG4, which share conserved structural features such as the Fc region responsible for effector functions including complement activation and Fc receptor interaction. Because of its high concentration, stability, and persistence following antigen exposure, IgG serves as a primary indicator of established and long-term immune responses.

Human IgG Antibody for ELISA / Anti-Human IgG Detection Antibody is specifically optimized for broad and sensitive detection of total IgG across all subclasses in ELISA-based immunoassays. Human IgG antibody, also known as anti-IGHG antibody or IgG immunoglobulin antibody, enables accurate quantification of IgG in serum, plasma, and cell culture samples. This recombinant rabbit monoclonal antibody clone RM116 recognizes human IgG and provides a reliable tool for comprehensive measurement of total IgG in diverse assay formats.

In ELISA workflows, detection of total IgG is essential for applications including antibody production monitoring, immune response assessment, and assay normalization. Because IgG concentrations are typically high relative to other

immunoglobulin classes, reliable detection requires both strong signal generation and selective specificity. The Human IgG Antibody for ELISA / Anti-Human IgG Detection Antibody functions effectively in ELISA formats to support consistent and high-intensity signal while minimizing background from non-IgG immunoglobulins. This enables accurate quantification across a wide dynamic range and supports reproducible assay performance.

Clone RM116 antibody recognizes human IgG, supporting detection across IgG subclasses while maintaining specificity against non-IgG immunoglobulin classes such as IgM, IgA, IgD, and IgE. The recombinant rabbit monoclonal format provides high affinity binding, strong reproducibility, and minimal lot-to-lot variability, ensuring consistent performance across ELISA experiments. This antibody is well suited for applications requiring reliable and comprehensive detection of IgG in complex biological samples.

Detection of total IgG is widely applied in immunology research, therapeutic antibody development, and diagnostic assay design. Because IgG reflects established immune responses and antibody production, accurate measurement provides insight into immune status, antibody titer, and long-term immunity. This antibody supports these applications by enabling robust and reproducible detection of IGHG-containing immunoglobulins in ELISA-based systems requiring high sensitivity, broad subclass coverage, and quantitative reliability.

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 IgG Antibody for ELISA / Anti-Human IgG Detection Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

1. A pH6 Citrate buffer or pH9 Tris/EDTA buffer HIER step is recommended for testing of FFPE tissue sections.

Immunogen

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

Storage

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

Alternate Names

Anti-human IgG ELISA antibody, IGHG detection antibody, Human IgG detection antibody, IgG immunoglobulin antibody, pan-IgG antibody