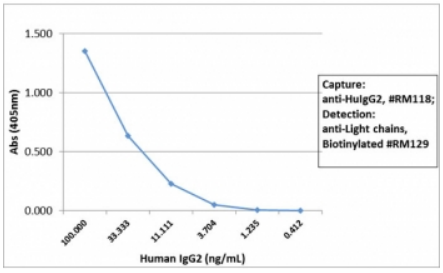
Human IgG2 Antibody for ELISA / Biotinylated Anti-Human IgG2 ELISA Detection Antibody [clone RM118] (R20188BTN)

Catalog No.	Formulation	Size
R20188BTN-50UG	1 mg/ml in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	50 ug

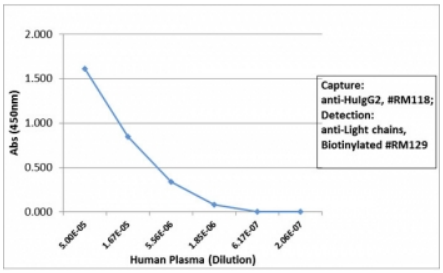
Recombinant RABBIT MONOCLONAL

Bulk quote request

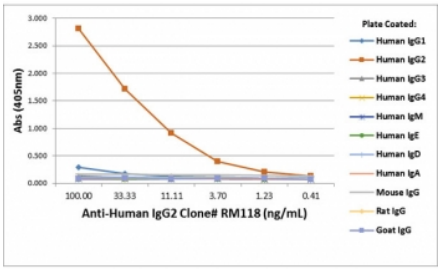
Availability	1-3 business days
Species Reactivity	Human
Format	Biotin Conjugate
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	RM118
Purity	Protein A purified from animal origin-free supernatant
UniProt	P01859
Gene ID	3501
Applications	ELISA: 50ng/well-200ng/well (Capture);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



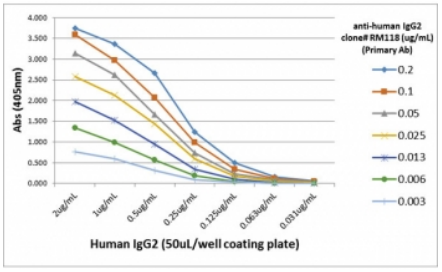
Human IgG2 Antibody Biotin ELISA Human IgG2 Standard Curve. Sandwich ELISA using purified human IgG2 demonstrates that the parent clone RM118 antibody provides strong and concentration-dependent capture of Human IgG2 / IGHG2 across the tested range, supporting accurate quantification. Detection was performed using a biotinylated anti-human light chains (kappa + lambda) antibody (clone RM129), followed by alkaline phosphatase-conjugated streptavidin for signal development. This standard curve reflects the intrinsic binding performance of clone RM118 and is representative of the characteristics retained in the biotinylated format of the Human IgG2 Antibody for ELISA / Biotinylated Anti-Human IgG2 ELISA Detection Antibody.



Human IgG2 Antibody Biotin Sandwich ELISA Human Plasma. Sandwich ELISA using human plasma demonstrates that the parent clone RM118 antibody functions effectively as a capture antibody for Human IgG2 / IGHG2, with signal intensity decreasing proportionally with sample dilution, indicating robust and concentration-dependent detection. Captured IgG2 was detected using a biotinylated anti-human light chains (kappa + lambda) antibody (clone RM129), followed by alkaline phosphatase-conjugated streptavidin for signal development. These results reflect the intrinsic binding performance of clone RM118 and are representative of the characteristics retained in the biotinylated format of the Human IgG2 Antibody for ELISA / Biotinylated Anti-Human IgG2 ELISA Detection Antibody.



Human IgG2 Antibody Biotin ELISA Subclass Specificity Analysis. ELISA analysis of human immunoglobulin subclasses demonstrates that the parent clone RM118 antibody selectively recognizes Human IgG2 / IGHG2, with strong signal observed for IgG2 across tested concentrations, while no cross-reactivity is detected with IgG1, IgG3, IgG4, IgE, IgD, or IgA, or with non-human IgG from mouse, rat, or goat. These results reflect the intrinsic subclass specificity of clone RM118 and are retained in the biotinylated format of the Human IgG2 Antibody for ELISA / Biotinylated Anti-Human IgG2 ELISA Detection Antibody.



Human IgG2 Antibody Biotin ELISA Titration Curve. ELISA titration using plates coated with serial dilutions of human IgG2 demonstrates strong, concentration-dependent binding of clone RM118 across a broad dynamic range. Signal intensity decreases proportionally with antibody dilution, confirming high sensitivity and consistent binding kinetics. Detection was performed using an alkaline phosphatase-conjugated anti-rabbit IgG secondary antibody. This titration profile reflects the intrinsic binding performance of the parent clone RM118 antibody and is representative of the characteristics retained in the biotinylated format of the Human IgG2 Antibody for ELISA / Biotinylated Anti-Human IgG2 ELISA Detection Antibody.

Description

Human immunoglobulin gamma 2 (IGHG2) encodes the heavy chain constant region of IgG2, a structurally and functionally distinct IgG subclass specialized for immune responses against polysaccharide and carbohydrate antigens. IgG2 is the dominant subclass generated against encapsulated bacterial pathogens such as Streptococcus pneumoniae and Haemophilus influenzae and plays a critical role in protective humoral immunity against these organisms. Unlike IgG1 and IgG3, which exhibit strong Fc receptor binding and complement activation, IgG2 displays reduced effector function, reflecting its primary role in antigen neutralization rather than inflammatory signaling. This functional distinction makes IgG2 an important biomarker for evaluating immune competency and antigen-specific antibody responses.

Human IgG2 Antibody for ELISA / Biotinylated Anti-Human IgG2 ELISA Detection Antibody is specifically engineered for high-sensitivity and subclass-selective detection of IgG2 in ELISA-based immunoassays. Human IgG2 antibody, also known as anti-IGHG2 antibody or anti-human IgG2 subclass antibody, is widely used to quantify IgG2 responses and to distinguish IgG2 from closely related subclasses such as IgG1, IgG3, and IgG4. This biotinylated recombinant rabbit monoclonal antibody clone RM118 provides strong and selective recognition of the IgG2 constant region, enabling accurate subclass discrimination even in complex biological samples containing multiple immunoglobulin subclasses.

In ELISA workflows, subclass-specific detection of IgG2 is essential for assessing immune responses to carbohydrate antigens, evaluating polysaccharide vaccine efficacy, and monitoring subclass distribution in clinical and research settings. The Human IgG2 Antibody for ELISA / Biotinylated Anti-Human IgG2 ELISA Detection Antibody functions effectively as a detection reagent in sandwich ELISA formats, binding specifically to IgG2 captured on assay plates while minimizing background from other immunoglobulin subclasses. Biotin conjugation enables signal amplification through streptavidin-based detection systems, significantly improving assay sensitivity and expanding dynamic range, particularly

in samples with low IgG2 abundance.

Clone RM118 antibody recognizes the constant region of human IgG2 heavy chains, ensuring selective detection without cross-reactivity to other IgG subclasses. The recombinant rabbit monoclonal format provides high affinity binding, excellent reproducibility, and minimal lot-to-lot variability, supporting consistent ELISA performance across experiments. The combination of subclass specificity and biotin-mediated signal enhancement makes this antibody particularly well suited for quantitative immunoassays requiring both precision and sensitivity.

Detection of IgG2 is widely applied in infectious disease research, vaccine development, and clinical immunology, where IgG2 responses serve as a key indicator of immunity to polysaccharide-rich pathogens. IgG2 deficiency has been associated with increased susceptibility to recurrent bacterial infections, further emphasizing the importance of accurate measurement. This antibody supports these applications by enabling sensitive and reproducible detection of IGHG2-containing immunoglobulins in ELISA-based systems requiring high specificity, enhanced signal detection, and reliable subclass resolution.

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 IgG2 Antibody for ELISA / Biotinylated Anti-Human IgG2 ELISA 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 IgG2 was used as the immunogen for this biotinylated recombinant Human IgG2 antibody.

Storage

Store the recombinant Human IgG2 antibody at -20oC.

Alternate Names

Biotin anti-human IgG2 antibody, Biotinylated IgG2 detection antibody, Human IgG2 biotin ELISA antibody, Immunoglobulin G2 biotin antibody, IgG2 biotin detection antibody

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