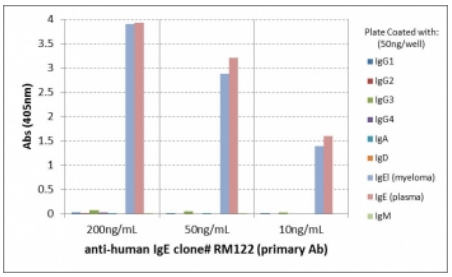
Human IgE Antibody for ELISA / Biotinylated Anti-IgE Detection Antibody [clone RM122] (R20186BTN)

Catalog No.	Formulation	Size
R20186BTN-50UG	1 mg/ml in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	50 ug

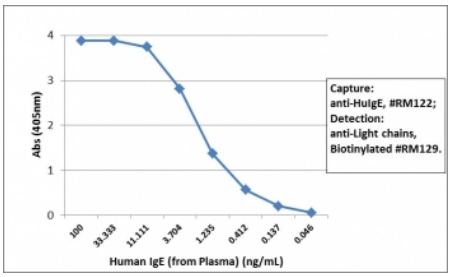
Recombinant RABBIT MONOCLONAL

Bulk quote request

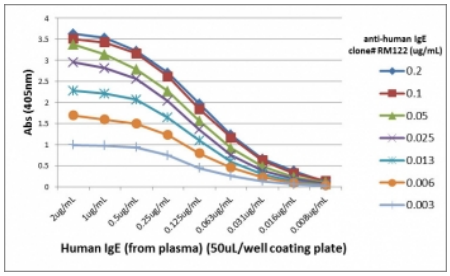
Availability	1-3 business days
Species Reactivity	Human
Format	Biotin Conjugate
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	RM122
Purity	Protein A purified from animal origin-free supernatant
UniProt	P01854
Gene ID	3497
Applications	ELISA : 10ng/well-100ng/well (Capture); 0.01-0.1ug/ml (Detection)
Limitations	This Human IgE Antibody for ELISA / Biotinylated Anti-IgE Detection Antibody is available for research use only.



Human IgE Antibody Biotin ELISA Subclass Specificity Analysis. ELISA analysis of human immunoglobulins demonstrates that the parent clone RM122 antibody selectively recognizes Human IgE / IGHE, with strong signal observed for IgE lambda from human myeloma and IgE derived from human plasma across tested concentrations. No cross-reactivity is detected with other immunoglobulin classes including IgG, IgM, IgD, or IgA. This binding profile reflects selective recognition of IgE and is representative of the performance retained in the biotinylated format of the Human IgE Antibody for ELISA / Biotinylated Anti-IgE Detection Antibody.



Human IgE Antibody Biotin Sandwich ELISA Human Plasma. Sandwich ELISA analysis demonstrates that the parent clone RM122 antibody functions effectively as a capture antibody for Human IgE / IGHE, with signal intensity decreasing proportionally with plasma dilution, indicating sensitive and concentration-dependent detection. Captured IgE was detected using a biotinylated anti-human light chains (kappa + lambda) antibody (clone RM129), followed by alkaline phosphatase-conjugated streptavidin for signal development. This binding profile reflects the intrinsic performance of clone RM122 and is representative of the characteristics retained in the biotinylated format of the Human IgE Antibody for ELISA / Biotinylated Anti-IgE Detection Antibody.



Human IgE Antibody Biotin ELISA Titration Curve. ELISA titration using plates coated with serial dilutions of human IgE derived from plasma demonstrates strong, concentration-dependent binding of clone RM122 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 RM122 antibody and is representative of the characteristics retained in the biotinylated format of the Human IgE Antibody for ELISA / Biotinylated Anti-IgE Detection Antibody.

Description

Human immunoglobulin epsilon (IGHE) encodes the heavy chain constant region of IgE, a low-abundance immunoglobulin class that plays a central role in allergic responses and hypersensitivity reactions. Despite its low concentration in circulation, IgE exerts strong biological effects through high-affinity binding to Fc epsilon receptors on mast cells and basophils, where it mediates antigen-triggered immune activation. This potent functional activity makes IgE a critical biomarker for allergic disease and immune system monitoring.

Human IgE Antibody for ELISA / Biotinylated Anti-IgE Detection Antibody is engineered for enhanced sensitivity and selective detection of IgE in ELISA workflows utilizing streptavidin-based signal amplification systems. Human IgE antibody, also referred to as anti-IGHE antibody or IgE immunoglobulin antibody, enables accurate detection of IgE in biological samples and supports analysis of allergy-related immune responses. This biotinylated recombinant rabbit monoclonal antibody clone RM122 provides selective recognition of human IgE while enabling amplified signal generation for improved assay performance in low-abundance detection scenarios.

In sandwich ELISA configurations, biotinylated detection antibodies provide increased assay sensitivity and expanded dynamic range through streptavidin-mediated amplification. The Human IgE Antibody for ELISA / Biotinylated Anti-IgE Detection Antibody binds selectively to IgE, allowing accurate detection even at low analyte concentrations where conventional detection approaches may be limited. This is particularly important in studies of allergic disease, immune profiling, and biomarker quantification where precise measurement of IgE is required.

Clone RM122 antibody recognizes human IgE, ensuring selective detection without cross-reactivity to other immunoglobulin classes such as IgG, IgA, IgM, or IgD. The recombinant rabbit monoclonal format provides strong affinity, consistent performance, and reproducibility across ELISA platforms. Biotin conjugation enhances assay flexibility by enabling compatibility with streptavidin-based detection systems commonly used in ELISA assays.

Measurement of IgE using biotinylated detection antibodies is widely applied in immunology research, allergy studies, and biomarker analysis. Because IgE levels are closely associated with hypersensitivity reactions, atopic disease, and immune activation, accurate detection provides critical insight into immune function and disease progression. This antibody supports these applications by enabling sensitive and reliable detection of IGHE-containing immunoglobulins in ELISA-based systems requiring enhanced signal amplification, high specificity, 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 IgE Antibody for ELISA / Biotinylated Anti-IgE 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 IgE was used as the immunogen for this recombinant Human IgE antibody.

Storage

Store the recombinant Human IgE antibody at -20oC.

Alternate Names

Biotin anti-IgE antibody, Biotinylated IGHE antibody, Human IgE biotin ELISA antibody, IgE detection biotin antibody, IgE ELISA antibody