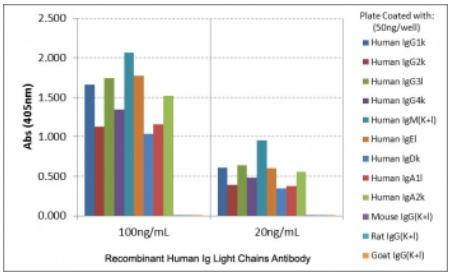
Biotinylated Human Immunoglobulin Light Chains Antibody for ELISA / Anti-Human Kappa and Lambda ELISA Antibody [clone RM129] (R20180BTN)

Catalog No.	Formulation	Size
R20180BTN-50UG	1 mg/ml in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	50 ug

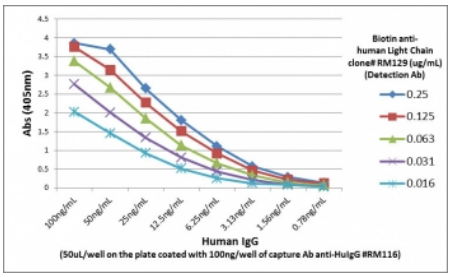
Recombinant RABBIT MONOCLONAL

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	RM129
Purity	Protein A purified from animal origin-free supernatant
UniProt	P01834
Gene ID	3514, 3537
Applications	ELISA: 0.02ug/ml-0.25ug/ml Immunocytochemistry: 0.5-2ug/ml Immunohistochemistry: 0.5-2ug/ml (1)
Limitations	This Biotinylated Human Immunoglobulin Light Chains Antibody for ELISA / Anti-Human Kappa and Lambda ELISA Antibody is available for research use only.



Human Immunoglobulin Light Chains Antibody for ELISA Biotinylated Human Immunoglobulin Panel Reactivity. ELISA analysis of human immunoglobulins using the unlabeled parent Human Immunoglobulin Light Chains Antibody for ELISA clone RM129 demonstrates strong reactivity to both kappa and lambda light chains across multiple human immunoglobulin classes, including IgG subclasses, IgM, IgA, and IgE. The biotinylated Human Immunoglobulin Light Chains Antibody for ELISA is derived from this parent antibody and is designed for use in streptavidin-based detection systems to enable enhanced sensitivity. No cross-reactivity is observed with mouse, rat, or goat immunoglobulin light chains, supporting high specificity for human immunoglobulin detection in ELISA applications.



Human Immunoglobulin Light Chains Antibody for ELISA Biotinylated Sandwich ELISA Detection Curve. Sandwich ELISA analysis using the unlabeled parent Human Immunoglobulin Light Chains Antibody for ELISA clone RM129 demonstrates concentration-dependent detection of human IgG-coated wells. The plate was coated with anti-human IgG capture antibody RM116 and loaded with varying amounts of human IgG, followed by detection with a serial dilution of RM129. The biotinylated Human Immunoglobulin Light Chains Antibody for ELISA is derived from this parent antibody and is designed for use in streptavidin-based detection systems to enable enhanced sensitivity in sandwich ELISA formats. These results support reliable detection of kappa and lambda light chain-containing human immunoglobulins in ELISA applications.

Description

Human immunoglobulin light chains are essential components of antibodies, consisting of kappa and lambda isotypes that pair with heavy chains to form functional immunoglobulins. Biotinylated Human Immunoglobulin Light Chains Antibody for ELISA is specifically designed for use in biotin-streptavidin detection systems, enabling enhanced sensitivity and signal amplification in ELISA-based assays. By recognizing both kappa and lambda chains, this antibody supports comprehensive and unbiased quantification of total immunoglobulin light chain content across diverse biological samples, including serum, plasma, and cell culture supernatants.

Human immunoglobulin light chains antibody, also referred to as anti-human kappa and lambda antibody or Ig light chains antibody in the literature, recognizes conserved regions present across immunoglobulin light chains in IgG, IgM, IgA, and IgE. This broad reactivity makes it highly effective as a detection antibody in sandwich ELISA formats, where consistent binding to captured immunoglobulins is required for reliable signal generation. The Biotinylated Human Immunoglobulin Light Chains Antibody for ELISA is optimized for detection workflows that rely on enzyme-linked streptavidin systems, supporting flexible assay design and high-sensitivity immunoassay development.

The biotin-conjugated format provides a key functional advantage by enabling strong and specific interaction with streptavidin-conjugated enzymes such as HRP or alkaline phosphatase. This interaction amplifies signal intensity and improves detection limits, making the antibody particularly useful for low-abundance antibody detection, limited sample input, or assays requiring a wide dynamic range. Compared to unlabeled detection strategies, the biotin-streptavidin system enhances assay sensitivity while maintaining specificity for human immunoglobulin light chains, ensuring accurate and reproducible ELISA performance.

Clone RM129 is a rabbit monoclonal antibody engineered for high affinity and consistent performance in ELISA-based detection systems. Its recombinant design supports reliable batch-to-batch reproducibility, which is essential for quantitative immunoassays. This antibody targets human immunoglobulin light chains in research applications requiring sensitive, specific, and amplification-capable ELISA detection, making it well suited for antibody quantification, immune monitoring, and immunoassay optimization.

For the unconjugated form of this clone, see our Human Immunoglobulin Light Chains ELISA Antibody RM129 page.

Application Notes

The stated application concentrations are suggested starting points. Titration of the recombinant Biotinylated Human Immunoglobulin Light Chains Antibody for ELISA / Anti-Human Kappa and Lambda ELISA 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 Ig Light Chains antibody.

Storage

Store the recombinant Human Ig Light Chains antibody at -20oC.

Alternate Names

Human kappa lambda biotin antibody, immunoglobulin light chain biotin ELISA antibody, anti-human kappa and lambda biotin antibody, human Ig light chains biotin antibody, kappa lambda biotin detection antibody

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