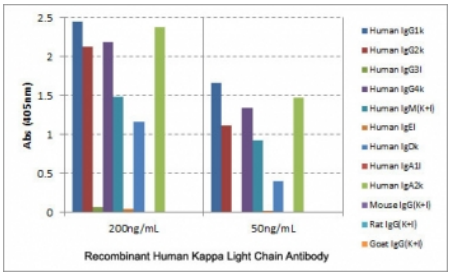
Human Kappa Light Chain Antibody for ELISA / Biotinylated Anti-Kappa Chain ELISA Detection Antibody [clone RM126] (R20178BTN)

Catalog No.	Formulation	Size
R20178BTN-50UG	1 mg/ml in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	50 ug

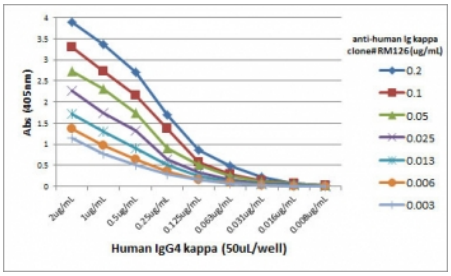
Recombinant RABBIT MONOCLONAL

Bulk quote request

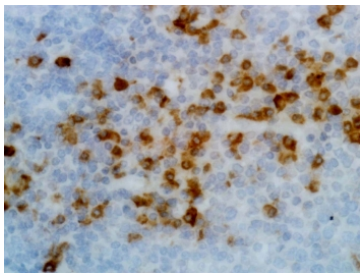
Availability	1-3 business days
Species Reactivity	Human
Format	Biotin Conjugate
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	RM126
Purity	Protein A purified from animal origin-free supernatant
UniProt	P01834
Gene ID	3514
Applications	ELISA : 0.05-0.2ug/ml Immunocytochemistry : 0.5-2ug/ml Immunohistochemistry : 0.5-2ug/ml
Limitations	This Human Kappa Light Chain Antibody for ELISA / Biotinylated Anti-Kappa Chain ELISA Detection Antibody is available for research use only.



Human Kappa Light Chain Antibody Biotin ELISA Specificity Analysis.ELISA analysis of recombinant human immunoglobulins demonstrates that the parent clone RM126 antibody selectively recognizes kappa light chain-containing antibodies, with strong signal observed across human IgG subclasses and IgM, while no cross-reactivity is detected with lambda light chain immunoglobulins or non-human IgG from mouse, rat, or goat. These results reflect the intrinsic specificity of clone RM126, which is retained in the biotinylated format of the Human Kappa Light Chain Antibody for ELISA / Biotinylated Anti-Kappa Chain ELISA Detection Antibody.



Human Kappa Light Chain Antibody Biotin ELISA Titration Curve.ELISA titration analysis using plates coated with serial dilutions of human IgG4 kappa (50uL per well) demonstrates strong, concentration-dependent binding of clone RM126 across a broad dynamic range. Serial dilution of the primary antibody shows proportional signal reduction with decreasing antibody concentration, confirming high sensitivity and robust binding kinetics. Detection was performed using an alkaline phosphatase-conjugated anti-rabbit IgG secondary antibody. These results reflect the intrinsic binding performance of the parent clone RM126, which is retained in the biotinylated format of the Human Kappa Light Chain Antibody for ELISA / Biotinylated Anti-Kappa Chain ELISA Detection Antibody.



Human Kappa Light Chain Antibody Biotin Human Tonsil IHC Staining.Immunohistochemistry analysis of Human kappa light chain / IGKC expression in FFPE human tonsil tissue demonstrates prominent cytoplasmic and membranous staining in plasma cells and B lymphocytes within lymphoid follicles, while surrounding stromal and non-lymphoid cells remain largely negative. The staining pattern highlights immunoglobulin-producing cells and is consistent with kappa light chain expression in antibody-secreting populations. Heat-induced epitope retrieval was performed using either pH6 citrate buffer or pH9 Tris-EDTA buffer prior to antibody incubation. These results reflect staining obtained with the parent clone RM126 antibody, and the same target recognition is retained in the biotinylated format of the Human Kappa Light Chain Antibody for ELISA / Biotinylated Anti-Kappa Chain ELISA Detection Antibody.

Description

Human immunoglobulin kappa constant (IGKC) encodes the constant region of kappa light chains, which are essential components of antibody molecules produced by B lymphocytes. These light chains pair with heavy chains to form functional immunoglobulins and are widely present in circulation. Kappa light chains are frequently analyzed in immunoassay systems due to their abundance and importance in evaluating immune responses, antibody production, and immunoglobulin composition.

Human Kappa Light Chain Antibody for ELISA / Biotinylated Anti-Kappa Chain ELISA Detection Antibody is specifically designed for enhanced sensitivity in ELISA workflows utilizing streptavidin-based detection systems. Human Kappa Light Chain antibody, also referred to as anti-IGKC antibody or anti-kappa chain antibody, is commonly used in ELISA assays to detect and quantify kappa-containing immunoglobulins. This biotinylated recombinant rabbit monoclonal antibody clone RM126 provides highly specific recognition of the kappa constant region while enabling amplified signal detection through biotin-streptavidin interactions.

In sandwich ELISA formats, biotinylated detection antibodies significantly improve assay performance by increasing sensitivity and expanding dynamic range. The Human Kappa Light Chain Antibody for ELISA / Biotinylated Anti-Kappa Chain ELISA Detection Antibody binds selectively to captured immunoglobulins, allowing precise detection even in samples with low antibody abundance. This results in strong signal intensity with low background, making it well suited for demanding quantitative immunoassays.

Clone RM126 antibody targets the constant region of human kappa light chains, ensuring reliable detection of intact immunoglobulins as well as kappa-containing fragments. The recombinant rabbit monoclonal format provides consistent binding characteristics and reproducibility across assays. Biotin conjugation enhances versatility by enabling compatibility with multiple detection systems, including streptavidin-HRP and streptavidin-AP platforms commonly used in ELISA workflows.

Measurement of kappa light chains using biotinylated antibodies is widely applied in immunology research, antibody characterization, and assay development. The ability to distinguish kappa from lambda light chain-containing immunoglobulins supports studies of B cell clonality and monoclonal antibody production. This antibody is suitable for

detecting Human kappa light chain expression in ELISA-based assays requiring enhanced sensitivity and flexible detection strategies.

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 Kappa Light Chain Antibody for ELISA / Biotinylated Anti-Kappa Chain ELISA Detection Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

Human IgG was used as the immunogen for this recombinant Biotinylated Human Kappa Light Chain antibody.

Storage

Store the Biotinylated Human Kappa Light Chain antibody at -20oC.

Alternate Names

Biotin anti-kappa light chain antibody, Biotinylated human Ig kappa antibody, Kappa chain biotin ELISA antibody, Immunoglobulin kappa biotin detection antibody, IGKC biotin antibody