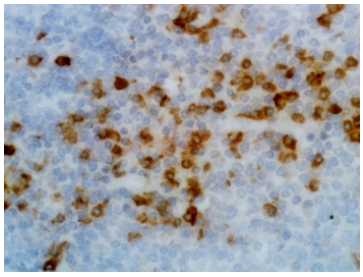
Human Kappa Light Chain Antibody for ELISA / Anti-Kappa Chain ELISA Detection Antibody [clone RM126] (R20178)

Catalog No.	Formulation	Size
R20178-100UG	1 mg/ml in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	100 ug

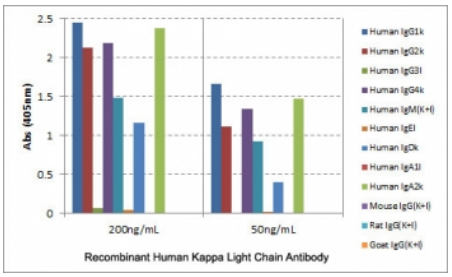
Recombinant RABBIT MONOCLONAL

Bulk quote request

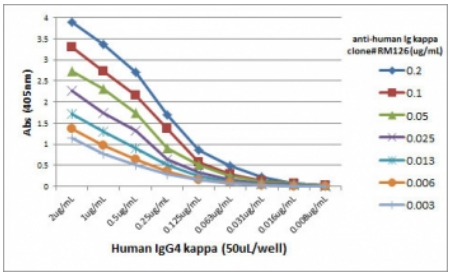
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	RM126
Purity	Protein A purified from animal origin-free supernatant
UniProt	P01834
Gene ID	3514
Applications	ELISA : 0.05-0.2ug/ml Immunocytochemistry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



Human Kappa Light Chain Antibody Human Tonsil IHC. Immunohistochemistry analysis of Human kappa light chain / IGKC expression in FFPE human tonsil tissue using clone RM126 shows strong cytoplasmic and membranous staining in scattered plasma cells and B lymphocytes within lymphoid follicles, with surrounding non-lymphoid cells 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, supporting reliable detection in formalin-fixed paraffin-embedded tissue.



Human Kappa Light Chain Antibody for ELISA Specificity Analysis. ELISA analysis of recombinant human immunoglobulins demonstrates that clone RM126 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. The results confirm high specificity for IGKC and support use of this antibody as a reliable detection reagent for kappa light chain measurement in immunoassay formats.



Human Kappa Light Chain Antibody for 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 wide 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, supporting reliable quantification of kappa light chain-containing immunoglobulins in ELISA-based assays.

Description

Human immunoglobulin kappa constant (IGKC) encodes the constant region of kappa light chains, a critical structural component of antibodies produced by B cells and plasma cells. Kappa light chains are highly abundant in serum and biological fluids and are essential for antigen recognition, immune complex formation, and adaptive immune function. Their consistent presence and stability make them a primary analytical target in immunoassay systems designed to measure antibody production and immune activity.

Human Kappa Light Chain Antibody for ELISA / Anti-Kappa Chain ELISA Detection Antibody is optimized for sensitive and reproducible immunoglobulin detection in ELISA-based workflows. Human Kappa Light Chain antibody, also known as anti-IGKC antibody or anti-kappa chain antibody, is widely used for quantifying antibody levels and monitoring immune responses. This recombinant rabbit monoclonal antibody clone RM126 delivers high specificity to the kappa constant region, ensuring accurate detection across a wide range of sample types and assay conditions.

In ELISA applications, detection antibodies targeting kappa light chains play a central role in identifying antibody-antigen interactions with precision and low background signal. The Human Kappa Light Chain Antibody for ELISA / Anti-Kappa Chain ELISA Detection Antibody functions effectively as a secondary detection reagent in sandwich ELISA formats, binding selectively to kappa-containing immunoglobulins captured on assay plates. This enables robust quantification of antibodies in serum, plasma, and cell culture supernatants while maintaining strong signal clarity. The ability to discriminate between kappa and lambda light chain-containing immunoglobulins is especially important in studies of antibody composition and immune profiling.

Clone RM126 antibody recognizes the constant region of human kappa light chains, allowing detection of intact immunoglobulins as well as kappa-containing fragments. Its recombinant rabbit monoclonal design provides high affinity binding, minimal variability, and strong reproducibility between experimental runs. The Human Kappa Light Chain Antibody for ELISA / Anti-Kappa Chain ELISA Detection Antibody is uniquely suited for quantitative immunoassays where consistent performance and specificity are required.

Detection of kappa light chains is widely applied in studies of B cell biology, antibody production, and immunoglobulin characterization. This antibody supports these applications by enabling reliable measurement of IGKC-containing immunoglobulins in diverse research systems. It is suitable for detecting Human kappa light chain expression in ELISA-based assays requiring accurate and sensitive immunoglobulin detection.

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 / 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 Human Kappa Light Chain antibody.

Storage

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

Alternate Names

Anti-Kappa Light Chain ELISA antibody, Human Ig kappa detection antibody, Kappa chain ELISA detection antibody, Immunoglobulin kappa ELISA antibody, IGKC detection antibody