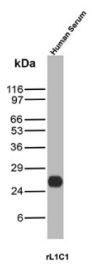
Recombinant Kappa Light Chain Antibody rL1C1 / Recombinant Mouse Monoclonal [clone rL1C1] (V3855)

Catalog No.	Formulation	Size
V3855-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3855-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3855SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

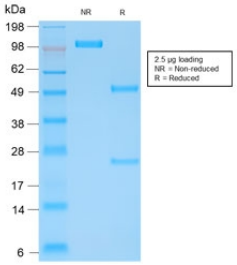
Recombinant MOUSE MONOCLONAL

Bulk quote request

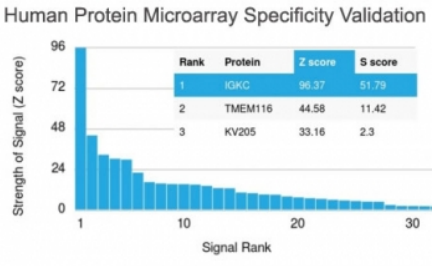
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG1, kappa
Clone Name	rL1C1
Purity	Protein G affinity chromatography
UniProt	P01601, P01834
Localization	Cell Surface, cytoplasmic and secreted
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT Western blot: 2-4ug/ml
Limitations	This Recombinant Kappa Light Chain Antibody rL1C1 is available for research use only.



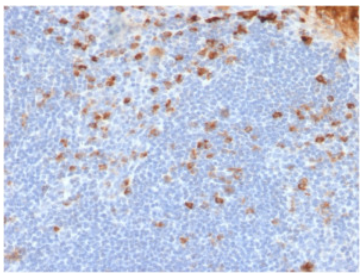
Recombinant Kappa Light Chain Antibody rL1C1 in Human Serum WB. Western blot testing of human serum with Recombinant Kappa Light Chain Antibody clone rL1C1 detects a strong, discrete band at approximately 25-28 kDa, consistent with the expected migration of an immunoglobulin kappa light chain. Minimal additional reactivity is visible under the tested conditions, producing a clean Western blot signal. This recombinant mouse monoclonal recognizes human kappa light chain in serum.



SDS-PAGE analysis of purified, BSA-free recombinant Kappa Light Chain antibody (clone rL1C1) as confirmation of integrity and purity.



Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using recombinant Kappa Light Chain antibody (clone rL1C1). These results demonstrate the foremost specificity of the rL1C1 mAb.
Z- and S- score: The Z-score represents the strength of a signal that an antibody (in combination with a fluorescently-tagged anti-IgG secondary Ab) produces when binding to a particular protein on the HuProt(TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If the targets on the HuProt(TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-scores. The S-score therefore represents the relative target specificity of an Ab to its intended target.



IHC testing of FFPE human tonsil tissue with recombinant Kappa Light Chain antibody (clone rL1C1). Required HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min followed by cooling at RT for 20 min.

Description

Recombinant Kappa Light Chain Antibody rL1C1 recognizes the kappa light chain of immunoglobulins, a structural element critical for antibody function. Light chains pair with heavy chains to create antigen-binding fragments, conferring the specificity that defines adaptive immunity. Kappa chains are produced by B lymphocytes during immunoglobulin assembly, and the ratio of kappa to lambda light chains serves as a diagnostic marker in both health and disease.

The structure of the kappa light chain consists of one variable domain and one constant domain. The variable domain forms part of the antigen binding site, enabling precise recognition of diverse antigens. The constant domain contributes to antibody stability and flexibility. Kappa light chains are encoded by genes that undergo VJ recombination, adding to antibody diversity. Free kappa chains appear in serum and urine when immunoglobulin synthesis is dysregulated, providing a biomarker for plasma cell disorders.

The Recombinant Kappa Light Chain antibody clone rL1C1 provides precise and reproducible detection. Recombinant engineering ensures consistent performance across experimental systems. Clone rL1C1 has been used in studies of immunoglobulin gene rearrangement, plasma cell dyscrasias, and B cell development. Peer-reviewed research highlights the relevance of kappa chain detection in evaluating monoclonal gammopathies and distinguishing between clonal and reactive processes.

Applications of clone rL1C1 include identification of B cell malignancies such as multiple myeloma and lymphoma, monitoring disease progression, and contributing to research on antibody structure. The antibody supports investigation into light chain regulation and its role in immune system balance. Its specificity provides confidence for both laboratory and translational research applications.

NSJ Bioreagents offers this Recombinant Kappa Light Chain antibody to enable high-quality studies of immunoglobulin

biology and disease. The protein is also known as Ig kappa chain antibody, kappa immunoglobulin light chain antibody, free kappa antibody, and immunoglobulin variable kappa region antibody. These alternate designations demonstrate the wide scope of kappa chain research in immunology and pathology.

For detection of total human kappa light chain, see our Human Kappa Light Chain ELISA Antibody RM126 page.

Application Notes

The optimal dilution of the Recombinant Kappa Light Chain Antibody rL1C1 for each application should be determined by the researcher.

Immunogen

Recombinant human Ig kappa chain was used as the immunogen for this Recombinant Kappa Light Chain Antibody rL1C1.

Storage

Store the Recombinant Kappa Light Chain Antibody rL1C1 at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

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