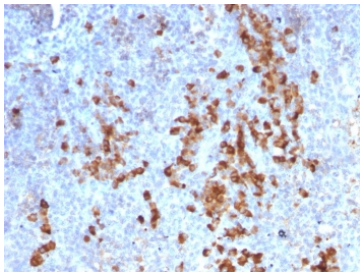
Recombinant Anti-Kappa Light Chain Antibody [clone rKLC709] (V3846)

Catalog No.	Formulation	Size
V3846-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3846-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3846SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

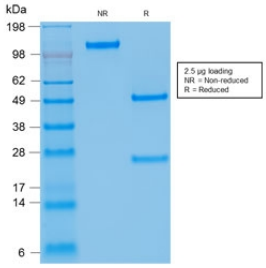
Recombinant MOUSE MONOCLONAL

Bulk quote request

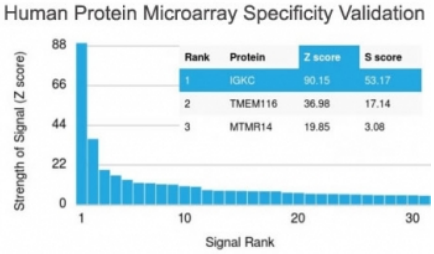
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG1, kappa
Clone Name	rKLC709
Purity	Protein G affinity chromatography
UniProt	P01601, P01834
Localization	Cell Surface, cytoplasmic and secreted
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
Limitations	This recombinant anti-Kappa light chain antibody is available for research use only.



IHC testing of FFPE human tonsil tissue with recombinant anti-Kappa light chain antibody (clone rKLC709). 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.



SDS-PAGE analysis of purified, BSA-free recombinant anti-Kappa light chain antibody (clone rKLC709) as confirmation of integrity and purity.



Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using recombinant anti-Kappa Light Chain antibody (clone rKLC709). These results demonstrate the foremost specificity of the rKLC709 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.

Description

Recombinant Anti-Kappa Light Chain antibody is designed to detect the kappa light chain component of immunoglobulins, an essential part of antibody structure. Immunoglobulins are composed of two heavy chains and two light chains, with the light chain existing in either kappa or lambda form. Approximately two-thirds of human immunoglobulins use kappa light chains, making their detection highly relevant in both normal immune biology and disease states such as plasma cell disorders.

Kappa light chains consist of variable and constant domains that pair with heavy chains to form antigen binding fragments. The variable region contributes to antigen specificity, while the constant region helps stabilize the antibody molecule. Free kappa light chains are produced during immunoglobulin synthesis, and their excess presence in serum or urine is clinically significant in conditions like multiple myeloma and light chain amyloidosis.

The Recombinant Anti-Kappa Light Chain antibody clone rKLC709 ensures reproducible and specific detection. Recombinant technology eliminates batch variability, providing dependable performance across research and diagnostic applications. Clone rKLC709 has been applied in immunology to study B cell development, in pathology to assess plasma cell tumors, and in clinical research investigating monoclonal gammopathies. Publications in peer-reviewed journals have documented the utility of kappa chain antibodies in studies of immunoglobulin diversity and hematologic malignancies, reinforcing the importance of reliable clones such as rKLC709.

Research using clone rKLC709 has expanded understanding of how kappa light chain expression varies across B cell subsets and disease states. It provides a reliable tool for differentiating monoclonal from polyclonal populations in lymphoid tissues. In cancer biology, kappa detection helps classify B cell lymphomas and identify clonal plasma cell proliferations. This antibody continues to be essential in both fundamental and translational immunology.

NSJ Bioreagents provides this Recombinant Anti-Kappa Light Chain antibody to support immunology, oncology, and pathology studies. Alternate names include immunoglobulin kappa chain antibody, Ig kappa light chain antibody, kappa immunoglobulin domain antibody, and free kappa light chain antibody, reflecting the varied terminology across scientific disciplines.

Application Notes

The optimal dilution of the recombinant anti-Kappa light chain antibody for each application should be determined by the researcher.

Immunogen

Recombinant human Ig kappa chain was used as the immunogen for this recombinant anti-Kappa light chain antibody.

Storage

Store the recombinant anti-Kappa light chain antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).