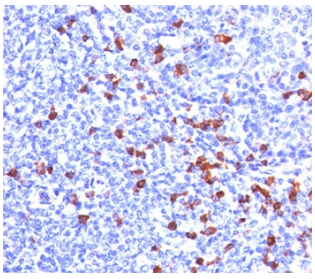
Anti-Kappa Light Chain Antibody / Human [clone KLC709] (V2150)

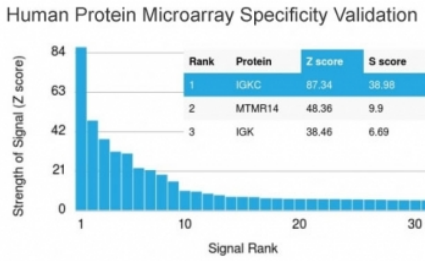
Catalog No.	Formulation	Size
V2150-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2150-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2150SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2150IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

Bulk quote request

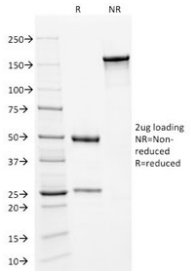
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	KLC709
Purity	Protein G affinity chromatography
Gene ID	3514
Localization	Cell surface, cytoplasmic and secreted
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
Limitations	This **anti-Kappa light chain antibody** is available for research use only.



IHC testing of human tonsil stained with anti-Kappa light chain antibody (clone KLC709).



Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using anti-Kappa light chain antibody (clone KLC709). These results demonstrate the foremost specificity of the KLC709 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.



SDS-PAGE analysis of purified, BSA-free anti-Kappa light chain antibody (clone KLC709) as confirmation of integrity and purity.

Description

Kappa Light Chain antibody clone KLC709 is a monoclonal antibody specific for immunoglobulin kappa light chains, a key component of many antibody molecules. Immunoglobulins are composed of two heavy chains and two light chains, with the light chains existing as either kappa or lambda isotypes. Kappa light chains are more common than lambda in circulating immunoglobulins and are essential for antibody diversity and antigen binding. NSJ Bioreagents provides Kappa Light Chain antibody clone KLC709 as a highly reliable reagent for detecting kappa chains in both research and diagnostic applications.

In immunopathology, Kappa Light Chain antibody clone KLC709 is routinely employed in the evaluation of plasma cell disorders. Immunohistochemistry and immunofluorescence using this antibody highlight plasma cells producing kappa light chains, helping to determine clonality in conditions such as multiple myeloma, monoclonal gammopathy, and plasmacytomas. Demonstrating light chain restriction is a critical diagnostic step, and clone KLC709 provides clear cytoplasmic staining patterns that distinguish kappa restricted cells from polyclonal plasma cell populations.

In nephropathology, Kappa Light Chain antibody clone KLC709 has been widely applied to kidney biopsies where deposition of monoclonal light chains contributes to disease. Detection of kappa light chains in glomeruli, tubules, or vascular walls can provide evidence of light chain deposition disease, amyloidosis, or monoclonal immunoglobulin associated nephropathy. The antibody reveals deposits that may not be apparent with routine histology, supporting accurate diagnostic interpretation.

Kappa Light Chain antibody clone KLC709 is also valuable in basic immunology. It is used to study B cell maturation, antibody production, and isotype distribution in both normal and diseased states. Because kappa light chains are present in the majority of circulating antibodies, their detection is a useful indicator of general humoral immune activity. In vaccine and infectious disease studies, clone KLC709 has been used to quantify antibody responses by monitoring kappa light chain containing immunoglobulins.

Technically, Kappa Light Chain antibody clone KLC709 has been validated in immunohistochemistry, immunofluorescence, flow cytometry, and western blotting. It consistently delivers strong and specific signals across applications, with minimal cross reactivity to lambda chains or unrelated proteins. Its reproducibility across laboratories has led to a strong publication record, reinforcing its value as a diagnostic and research tool. Alternate names include Ig kappa antibody, immunoglobulin kappa chain antibody, and antibody kappa light chain marker.

Application Notes

The concentration stated for each application is a general starting point. Variations in protocols, secondaries and substrates may require the anti-Kappa light chain antibody to be titered up or down for optimal performance.

1. Staining of FFPE tissues requires boiling sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min followed by cooling at RT for 20 min.
2. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

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

Storage

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

References (1)