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Kappa light chain Antibody
Mouse Monoclonal Antibody (Mab)
Catalog # AM1971a

Specification

Kappa light chain Antibody - Product Information

Application	**WB, IHC-P,E**
Primary Accession	P01834
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1,k**
Calculated MW	**11765**

Kappa light chain Antibody - Additional Information

Other Names
Ig kappa chain C region, IGKC

Target/Specificity
This Kappa light chain monoclonal antibody is generated from mouse immunized with Kappa light chain recombinant protein.

Dilution
WB~~1:100~1000
IHC-P~~1:10~50

Format
Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Kappa light chain Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Kappa light chain Antibody - Protein Information

Name IGKC {ECO:0000303|PubMed:11549845, ECO:0000303|Ref.13}

Function Constant region of immunoglobulin light chains. Immunoglobulins, also known as antibodies, are membrane-bound or secreted glycoproteins produced by B lymphocytes. In the recognition phase of humoral immunity, the membrane-bound immunoglobulins serve as receptors which, upon binding of a specific antigen, trigger the clonal expansion and differentiation of B lymphocytes into immunoglobulins- secreting plasma cells. Secreted

immunoglobulins mediate the effector phase of humoral immunity, which results in the elimination of bound antigens (PubMed:20176268, PubMed:22158414). The antigen binding site is formed by the variable domain of one heavy chain, together with that of its associated light chain. Thus, each immunoglobulin has two antigen binding sites with remarkable affinity for a particular antigen. The variable domains are assembled by a process called V-(D)-J rearrangement and can then be subjected to somatic hypermutations which, after exposure to antigen and selection, allow affinity maturation for a particular antigen (PubMed:17576170, PubMed:20176268).

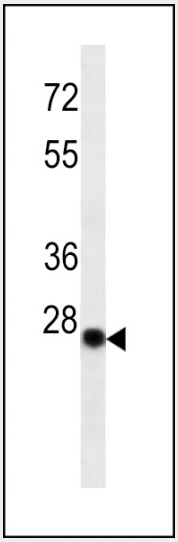
Cellular Location
Secreted. Cell membrane

Kappa light chain Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Kappa light chain Antibody - Images



Kappa light chain Antibody western blot analysis in human serum protein (35µg/lane).This demonstrates the Kappa light chain antibody detected the Kappa light chain protein (arrow).

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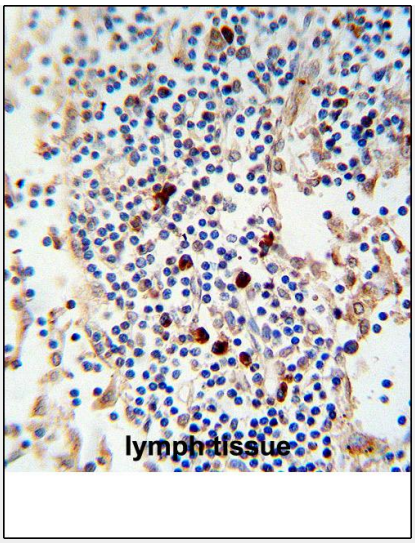

Kappa light chain Antibody (Cat. #AM1971a)immunohistochemistry analysis in formalin fixed and paraffin embedded human lymph tissue followed by peroxidase conjµgation of the secondary antibody and DAB staining.This data demonstrates the use of Kappa light chain Antibody for immunohistochemistry. Clinical relevance has not been evaluated.

Kappa light chain Antibody - Background

Immunoglobulins recognize foreign antigens and initiate immune responses such as phagocytosis and the complement system. Each immunoglobulin molecule consists of two identical heavy chains and two identical light chains. There are two types of light chains designated as kappa and lambda (1). Light chain types are based on differences in the amino acid sequence in the constant region of the light chain. If a cell is unsuccessful in rearranging both of its kappa light chain genes, it then attempts to make a lambda light chain. If a cell successfully rearranges a lambda light chain gene, it will be a B cell that makes an immunoglobulin with a lambda light chain (2).

Kappa light chain Antibody - References

58066: Reimer CB, et al. Evaluation of thirty-one mouse monoclonal antibodies to human IgG epitopes. Hybridoma 3: 263-275, 1984. PubMed: 6209201