

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

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**Kappa light chain Antibody - Product Information**

Application	IHC-P, WB,E
Primary Accession	<a href="#">P01834</a>
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**

IHC-P~~1:10~50

WB~~1:100~1000

E~~Use at an assay dependent concentration.

**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

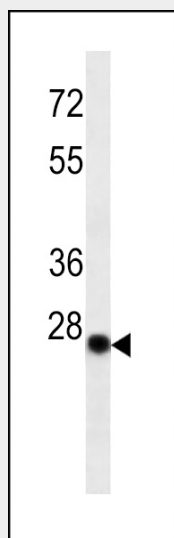
Secreted. Cell membrane

### Kappa light chain Antibody - Protocols

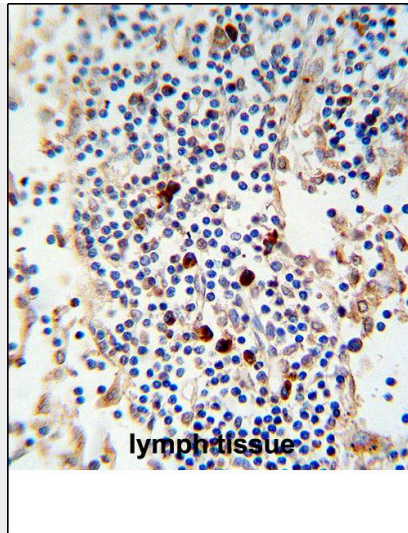
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [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).



Kappa light chain Antibody (Cat. #AM1971a) immunohistochemistry analysis in formalin fixed and paraffin embedded human lymph tissue followed by peroxidase conjugation 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