

# Kappa Light Chain (B-Cell Marker) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone SPM558]
Catalog # AH10513

## **Specification**

# Kappa Light Chain (B-Cell Marker) Antibody - With BSA and Azide - Product Information

Application ,1,14,3,4,
Primary Accession P01601

Other Accession <u>3514</u>, <u>449609</u>, <u>P01834</u>

Reactivity Human
Host Mouse
Clonality Monoclonal

Isotype Mouse / IgG1, kappa

Calculated MW ~22.5kDa KDa

# Kappa Light Chain (B-Cell Marker) Antibody - With BSA and Azide - Additional Information

#### **Other Names**

Ig kappa chain V-I region HK101, KV109

#### **Format**

200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.

#### Storage

Store at 2 to 8°C. Antibody is stable for 24 months.

#### **Precautions**

Kappa Light Chain (B-Cell Marker) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

#### Kappa Light Chain (B-Cell Marker) Antibody - With BSA and Azide - Protein Information

Name | IGKV1D-16 {ECO:0000303|PubMed:11549845, ECO:0000303|Ref.5}

## **Function**

V region of the variable domain of immunoglobulin light chains that participates in the antigen recognition (PubMed:<a href="http://www.uniprot.org/citations/24600447" target="\_blank">24600447</a>). 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:<a href="http://www.uniprot.org/citations/20176268" target="\_blank">20176268</a>, PubMed:<a href="http://www.uniprot.org/citations/22158414" target="\_blank">22158414</a>). 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:<a href="http://www.uniprot.org/citations/20176268" target="\_blank">20176268</a>, PubMed:<a href="http://www.uniprot.org/citations/17576170" target=" blank">17576170</a>).

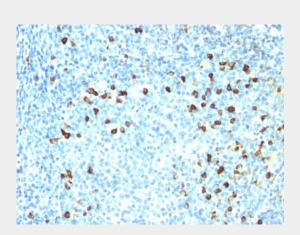
**Cellular Location**Secreted. Cell membrane

# Kappa Light Chain (B-Cell Marker) Antibody - With BSA and Azide - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

# Kappa Light Chain (B-Cell Marker) Antibody - With BSA and Azide - Images



Formalin-fixed, paraffin-embedded human Tonsil stained with Kappa Light Chain Ab (SPM558).

# Kappa Light Chain (B-Cell Marker) Antibody - With BSA and Azide - Background

This MAb is specific to kappa light chain of immunoglobulin and shows no cross-reaction with lambda light chain or any of the five heavy chains. In mammals, the two light chains in an antibody are always identical, with only one type of light chain, kappa or lambda. The ratio of Kappa to Lambda is 70:30. However, with the occurrence of multiple myeloma or other B-cell malignancies this ratio is disturbed. Antibody to the kappa light chain is reportedly useful in the identification of leukemias, plasmacytomas, and certain non-Hodgkin's lymphomas. Demonstration of clonality in lymphoid infiltrates indicates that the infiltrate is malignant.

## Kappa Light Chain (B-Cell Marker) Antibody - With BSA and Azide - References

Takahashi H et. al. Pathol Res Prac 189:300-311 (1993).2. Momose H et. al. Hum Pathol. 23:1115-1119 (1992)