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

Mouse Monoclonal Antibody [Clone SPM508 ]
Catalog # AH10510

## Product Information

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| **Application** | WB, IF, FC, IHC-P |
| **Primary Accession** | P01601 |
| **Other Accession** | 3514, 449609, P01834 |
| **Reactivity** | Human |
| **Host** | Mouse |
| **Clonality** | Monoclonal |
| **Isotype** | Mouse / IgG1, kappa |
| **Clone Names** | SPM508 |
| **Calculated MW** | 12730 |

## Additional Information

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| **Other Names** | Ig kappa chain V-I region HK101, KV109 |
| **Application Note** | WB~~1:1000 IF~~1:50~200 FC~~1:10~50 IHC-P~~N/A |
| **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. |

## Protein Information

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| **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:24600447). 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 |

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| | 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 |

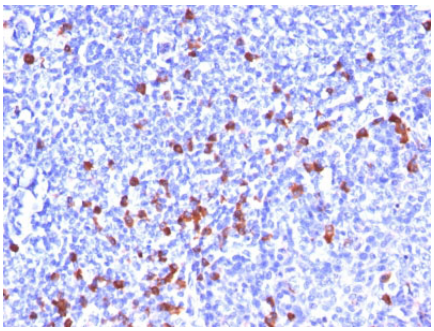
## Background

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.

## References

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

## Images



Formalin-fixed, paraffin-embedded human Tonsil stained with Kappa Light Chain Monoclonal Antibody (SPM508).