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# Lambda light chain Antibody

Mouse Monoclonal Antibody (Mab)
Catalog # AM1972a

## Product Information

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|---|---|
| **Application** | WB |
| **Primary Accession** | P01701 |
| **Other Accession** | P0CG04 |
| **Reactivity** | Human |
| **Host** | Mouse |
| **Clonality** | Monoclonal |
| **Isotype** | IgG2a ,k |
| **Clone Names** | HP6054 |
| **Calculated MW** | 12249 |

## Additional Information

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|---|---|
| **Other Names** | Ig lambda chain V-I region NEW, LV103 |
| **Target/Specificity** | This Lambda light chain monoclonal antibody is generated from mouse immunized with Lambda light chain recombinant protein. |
| **Dilution** | WB~~1:500~16000 IHC-P~~1:10~50 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** | Lambda light chain Antibody is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | IGLV1-51 {ECO:0000303\|PubMed:11872955, ECO:0000303\|Ref.7} |
| **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 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

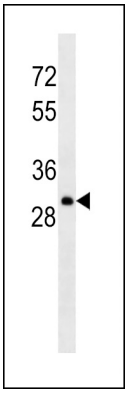
## Background

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).

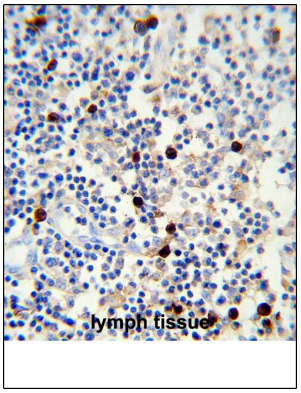
## References

58066: Reimer CB, et al. Evaluation of thirty-one mouse monoclonal antibodies to human IgG epitopes. Hybridoma 3: 263-275, 1984. PubMed: 6209201
58067: Jefferis R, et al. Evaluation of monoclonal antibodies having specificity for human IgG sub-classes: Results of an IUIS/WHO collaborative study. Immunol. Lett. 10: 223-252, 1985. PubMed: 3899923

## Images




Lambda light chain Antibody western blot analysis in Ramos cell line lysates (35 µg/lane).This demonstrates the Lambda light chain antibody detected the Lambda light chain protein (arrow).




Lambda light chain Antibody (Cat. #AM1972a)immunohistochemistry analysis in formalin fixed and paraffin embedded human lymph tissue followed by peroxidase conj µgation of the secondary antibody and DAB staining.This data demonstrates the use of Lambda light chain Antibody for immunohistochemistry. Clinical relevance has not been evaluated.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.