

## **Anti-Kappa Light Chain**

Rabbit polyclonal antibody  
Reference: AP10060; AP10060C



1 of 2

### **INTENDED USE AND PRESENTATION:**

For *in vitro* diagnostic use.

**AP10060, 7 ml.** Prediluted antibodies in a synthetic organic linear polymer buffer solution (pH 7.4), with carrier protein and preservative for stabilisation "READY TO USE"

**AP10060C, 1 ml.** Concentrated antibodies with carrier protein and preservative for stabilisation.

### **SUMMARY, EXPLANATION AND LIMITATIONS:**

Antibody to the kappa light chain of immunoglobulin 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 clonal and therefore malignant.

Immunohistochemistry (IHC) is a complex technique in which immunological and histological detection methods are combined. In general, the manipulation and processing of tissues before immunostaining, especially different types of tissue fixation and embedding, as well as the nature of the tissues themselves may cause inconsistent results (Nadji and Morales, 1983). Endogenous pseudoperoxidase and peroxidase activity or endogenous biotin and alkaline phosphatase activity can cause non-specific staining results depending on the detection system used. Tissues that contain Hepatitis B surface antigen (HBsAg) can produce false positives when using HRP detection systems (Omata et al, 1980). Insufficient contrast staining and/or improper mounting of the sample may influence the interpretation of results.

**Isotype:** IgG

**Immunogen:** Kappa light chains purified from human Bence Jones proteins.

**Staining pattern:** Cytoplasmic.

The interpretation of the stain results is the full responsibility of the user. Any experimental result must be confirmed by a medically established diagnostic product or procedure.

**Positive control:** Tissue sample from tonsil.

**External negative control:** Tissue sample homologous to the test sample incubated with an antibody isotype not specific for kappa light chain.

### **APPLICATIONS:**

This antibody is designed for the specific localization of human kappa light chain using IHC techniques in formalin-fixed, paraffin-embedded tissue sections.

Is useful for detecting monoclonality in B cell lymphoproliferative disorders, which provides significant support diagnosis of lymphoma versus lymphoid hyperplasia or other reactive lymphadenitis; as well as in leukemia and plasma cell, plasma cell dysplasias myelomas or plasmacytomas.

### **PRODUCT COMPOSITION:**

Immunoglobulin IgG, polyclonal, obtained from purified rabbit serum. The preparation contains saline buffer,

stabilising and carriers proteins, and sodium azide as a preservative.

### **METHODS AND PROCEDURE:**

**Principles of the procedure:** The demonstrations of antigens by IHC is a sequential procedure with several steps involving first the application of a specific antibody for the antigen of interest (primary antibody), then a secondary antibody which joins to the first, an enzyme complex, and the addition of a chromogenic substrate. The sample is washed between each step. Enzymatic activation of the chromogenic substrate creates a visible product where the antigen is located. The results are interpreted using a light microscope. The primary antibody can be used both in manual IHC and with automated immunostainers.

**Specimen:** Paraffin-embedded tissue samples should be used. Western blot techniques are not recommended.

#### **Staining procedure:**

|  |                            |
|--|----------------------------|
| <b>Antigen retrieval</b>                           | HIER Citrate Buffer pH 6.5 |
| <b>Working dilution</b><br>(only for concentrates) | 1:200 – 1:300              |
| <b>Incubation</b>                                  | 30 min; RT                 |
| <b>Control Tissue</b>                              | Tonsil                     |

#### **Amplification and development of the immunostaining:**

Follow standard procedure and the recommendations given by the manufacturer for the materials used. In the case of using automated immunostainers, use the specified buffers and materials for each instrument.

See our web site at [www.gennova-europe.com](http://www.gennova-europe.com) for detailed protocols ancillary reagents and support products.

### **REQUIRED MATERIALS BUT NOT SUPPLIED:**

All reagents, materials, and laboratory equipment for IHC procedures are not provided with this antibody. This includes adhesive slides and cover slips, positive and negative control tissues, Xylene or adequate substitute, ethanol, distilled H<sub>2</sub>O, heat pretreatment equipment (pressure cooker, steamer, microwave), pipettes, Coplin jars, glass jars, moist chamber, histological baths, negative control reagents, counter-staining solution, mounting materials, and microscope.

Buffered solutions for antigen retrieval, enzyme treatments, highly sensitive detection systems, and other auxiliary reagents are available from Genova Scientific.

### **STORAGE AND STABILITY:**

Store at 2-8 °C until the expiration date printed on product label. Do not use after the expiration date. If fresh solutions are required, these must be prepared immediately prior to use, and will be stable for at least one day at room temperature (20-25°C). Unused portion of antibody preparation should be discarded after one day. If the product is stored under different conditions from those stipulated in these technical indications, the new conditions must be verified by the user. The validity period of the ready to use products when opened, is the same as the expiration date



Catalog number



Batch code



In Vitro diagnostic medical device



Temperature limitation



Expiration date



Manufacturer



See instruction for use



**Genova Scientific, S.L.**  
C/ Johann Gutenberg, 4F. Pol. Ind.  
El Caamo I • 41300 San Jose  
de La Rinconada • Sevilla, SPAIN  
Telefono: +34 954 150767  
Fax: +34 955 266494

[info@gennovalab.com](mailto:info@gennovalab.com)  
[www.gennova-europe.com](http://www.gennova-europe.com)

# Anti-Kappa Light Chain

Rabbit polyclonal antibody  
Reference: AP10060; AP10060C



2 of 2

indicated on the label of intact product.

Gennova Scientific guarantees that the product will maintain all of the described characteristics from the production date until the expiration date, as long as the product is stored and used as recommended. No other guarantees are provided. Under no circumstances is Gennova Scientific obliged to cover damages caused by use of this reagent.

## TROUBLESHOOTING:

If unusual staining is observed or any other deviations from the expected results, please read these instructions carefully, along with the instructions from the detection system. If this does not solve the problem, please contact Gennova Scientific's technical support department or your local distributor.

## PRECAUTIONS:

Use only by qualified personnel.

Use proper protective equipment in order to avoid contact with reagents and samples in the eyes, skin, and mucosal tissues. In case of contact with sensitive areas, immediately flush the affected area with water. Avoid microbial contamination of the reagent, as this may produce nonspecific staining results. This antibody contains sodium azide (NaN<sub>3</sub>), used as a stabilising agent, which is not considered to be a hazardous material in the concentration used. Concentration of sodium azide in drainage pipes made of lead or copper can cause the formation of highly explosive metallic azides. In order to avoid this, sodium azide must be disposed of along with a large volume of running water. Material safety data sheet (MSDS) for pure sodium azide is available upon request.

## PERFORMANCE CHARACTERISTICS:

Gennova Scientific has performed studies to evaluate the functioning of these antibodies for use with standard detection systems, concluding that the product is both specific and sensitive for the antigen of interest.

## BIBLIOGRAPHY:

Korkolopoulou P; Pangalis GA; Patsouris E; Boussiotis VA; Kittas C. B-cell lymphoma of large multilobated type: an immunohistochemical study of 8 cases and review of the literature. *Leukemia and Lymphoma*, 1994, 13(1-2):151-9.

Abe M; Goto T; Kennel SJ; Wolfenbarger D; Macy SD; Weiss DT; Solomon A. Production and immunodiagnostic applications of antihuman light chain monoclonal antibodies. *American Journal of Clinical Pathology*, 1993, 100(1):67-74.

Berg AM; Troxler RF; Grillone G; Kasznica J; Kane K; Cohen AS; Skinner M. Localized amyloidosis of the larynx: evidence for light chain composition. *Annals of Otolaryngology, Rhinology and Laryngology*, 1993, 102(11):884-9.

Takahashi H; Fujita S; Okabe H; Tsuda N; Tezuka F. Immunophenotypic analysis of extranodal non-Hodgkin's lymphomas in the oral cavity. *Pathology, Research and Practice*, 1993, 189:300-11.

Momose H; Chen YY; Ben-Ezra J; Weiss LM. Nodular lymphocyte-predominant Hodgkin's disease: study of immunoglobulin light chain protein and mRNA expression. *Human Pathol*, 1992, 23:1115-9.

Takahashi H; Cheng J; Fujita S; Tsuda N; Tezuka F; Liu AR; Okabe H. Primary malignant lymphoma of the salivary gland: a tumor of mucosa-associated lymphoid tissue. *Journal of Oral Pathology and Medicine*, 1992, 21(7):318-25.

Axelrod O; Silverman GJ; Dev V; Kyle R; Carson DA; Kipps TJ. Idiotypic cross-reactivity of immunoglobulins expressed in Waldenström's macroglobulinemia, chronic lymphocytic leukemia, and mantle zone lymphocytes of secondary B-cell follicles. *Blood*, 1991, 77(7):1484-90.

Chen YT; Godwin TA; Mouradian JA. Immunohistochemistry and gene rearrangement studies in the diagnosis of malignant lymphomas: a comparison of 152 cases. *Human*

*Pathology*, 1991, 22(12):1249-57.

Faa G; Van Eyken P; De Vos R; Fevery J; Van Damme B; De Groote J; Desmet VJ. Light chain deposition disease of the liver associated with AL type amyloidosis and severe cholestasis. *Journal of Hepatology*, 1991, 12(1):75-82.

Farhi DC; Luckey CN. Prospective gene rearrangement studies and multiparameter analysis of acute myeloid leukemia. *American Journal of Clinical Pathology*, 1991, 95(5):702-8.

Schmid C; Sargent C; Isaacson PG. L and H cells of nodular lymphocyte predominant Hodgkin's disease show immunoglobulin light-chain restriction. *American Journal of Pathology*, 1991, 139:1281-9.

Strauchen JA; Mandeli JP. Immunoglobulin expression in B-cell lymphoma. Immunohistochemical study of 345 cases. *American Journal of Clinical Pathology*, 1991, 95(5):692-5.

Faure GC; Tang JG; Mole C; Bene MC. Plasma cells producing lambda light chains are predominant in human gut and tonsils. An immunohistomorphometric study. *American Journal of Clinical Pathology*, 1990, 94(5):571-5.

Picken MM; Gallo GR; Pruzanski W; Frangione B. Biochemical characterization of amyloid derived from the variable region of the kappa light chain subgroup III. *Arthritis and Rheumatism*, 1990, 33(6):880-4.

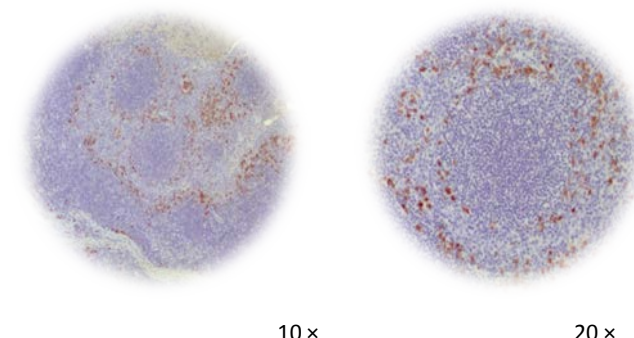
Silver MM; Hearn SA; Walton JC; Lines LA; Walley VM. Immunogold quantitation of immunoglobulin light chains in renal amyloidosis and kappa light chain nephropathy. *American Journal of Pathology*, 1990, 136(5):997-1007.

VanderMolen LA; Duffey PL; Cossman J; Jaffe ES; Longo DL. Surface light chain phenotype in indolent lymphomas: lack of prognostic significance. *American Journal of Hematology*, 1990, 34:15-20.

Wu AM; Winberg CD; Sheibani K; Colombero AM; Wallace RB; Rappaport H. Genotype and phenotype: a practical approach to the immunogenetic analysis of lymphoproliferative disorders. *Human Pathology*, 1990, 21(11):1132-41.

Nadji M; Morales AR. Immunoperoxidase, part 1: the techniques and its pitfall. *Lab Med* 1983; 14:767-770.

Omata M; Liew CT; Ashcavai M; Peters RI. Nonimmunologic binding of horseradish peroxidase to hepatitis B surface antigen. A possible source of error in immunohistochemistry. *Am J Clin Pathol*. May, 1980;73(5):626-632.



IHC of Kappa Light Chain (Polyclonal) on FFPE tonsil tissue.

Citrate pH 6.5; DAB; Hematoxylin

F01IT04\_V3R0212\_AP10060\_English



Catalog number



Batch code



In Vitro diagnostic medical device



Temperature limitation



Expiration date



Manufacturer



See instruction for use



Gennova Scientific, S.L.  
C/ Johann Gutenberg, 4F. Pol. Ind.  
El Cádizamo I • 41300 San José  
de La Rinconada • Sevilla, SPAIN  
Teléfono: +34 954 150767  
Fax: +34 955 266494

[info@gennovalab.com](mailto:info@gennovalab.com)  
[www.gennova-europe.com](http://www.gennova-europe.com)