GENE BIO SOLUTION

Kappa Light Chain [L1C1]

Format	Catalog no.	Pack size	Dilution
Concentrated	GB-c3149A,C	0.1, 1.0 mL	1 : 100
Prediluted	GB-p3149AA	6.0mL	Ready to use

PRODUCT DESCRIPTION -

Leukemias, plasmacytomas, and some non-Hodgkin's lymphomas can be identified with the use of this antibody because it identifies the kappa light chains of human immunoglobulins. One hallmark of these cancers is the overexpression of one particular class of light chains. About 2:1 is the typical human kappa/lambda ratio. A kappa/lambda ratio more than 10:1 is indicative of cancerous growth when light chain limitation is clearly present.

INTENDED USE -

For In Vitro Diagnostic Use- Kappa Light Chain [L1C1] is a mouse monoclonal antibody designed for laboratory application in the qualitative detection of kappa light chain protein using immunohistochemistry (IHC) in formalin-fixed paraffin-embedded (FFPE) human tissues. The clinical interpretation of any staining or its absence must be supplemented by morphological studies utilizing appropriate controls and assessed in conjunction with the patient's clinical history and other diagnostic tests by a skilled pathologist.

SUMMARY AND EXPLANATION -

This antibody identifies kappa light chains of human immunoglobulins, perhaps aiding in the diagnosis of leukemias, plasmacytomas, and specific non-Hodgkin's lymphomas. The predominant characteristic of these malignancies is the limited expression of a singular light chain class. The typical human kappa/lambda ratio is roughly 2:1. The existence of distinct light chain restriction with a kappa/lambda ratio over 10:1 is indicative of malignant growth.

PRINCIPLE OF PROCEDURE -

Antigen detection in tissues and cells is a multi-step immunohistochemistry procedure. The first step attaches the primary antibody to its designated epitope. Following the tagging of the antigen with a primary antibody, a one-, two-, or three-step detection protocol may be utilized. The one-step approach will utilize an

enzyme-conjugated polymer that attaches to the main antibody. A two-step approach will involve the addition of a secondary antibody to bind to the primary antibody. An enzyme-conjugated polymer is subsequently introduced to engage with the secondary antibody. The three-step detection protocol will include the addition of a secondary antibody to bind to the main antibody, succeeded by a linker antibody step to enhance binding efficacy. An enzyme-conjugated polymer is subsequently introduced to attach to the linker antibody. The presence of bound antibodies is demonstrated by a colorimetric response.

SOURCE - Mouse monoclonal

SPECIES REACTIVITY - Human; other subjects not evaluated

CLONE - L1C1

ISOTYPE - Immunoglobulin G1
PROTEIN CONCENTRATION - Request lot-specific immunoglobulin concentration.

EPITOPE/ANTIGEN - Kappa immunoglobulin light chain

CELLULAR LOCALISATION - Cytoplasmic

POSITIVE TISSUE CONTROL - Tonsil or Bone Marrow

KNOWN APPLICATIONS - Immunohistochemistry 30-40 min. At RT. Staining of formalin-fixed tissues requires heating tissue sections in between pH 7.4 - 9.0 for 45 min at 95°C followed by cooling at room temperature for 20 minutes.

SUPPLIED AS - Buffer with a protein carrier and preservative

STORAGE AND STABILITY -

Store at 2°C to 8°C. The product is stable to the expiration date printed on the label, when stored under these conditions. Do not use after expiration date. Diluted reagents should be used promptly; any remaining reagent should be stored at 2°C to 8°C.

Materials required but not provided -

1) Positive tissue control - Tonsil or Bone Marrow
2) Negativecontroltissue(internalorexternal)
3) Microscopeslidesandcoverslips
4) Stainingjarsorbaths
5) Timer

6) Xyleneorxylenesubstitute
7) Ethanolorreagentalcohol
8) Deionizedordistilledwater
9) Heatingequipmentorenzymefortissuepretreatmentstep
10)Detection system
11)Chromogen
12)Wash buffer
13) Hematoxylin
14)Antibody diluents
15)Peroxide block
16)Light microscope
17)Mounting medium

LIMITATIONS-

The optimum antibody dilution and protocols for a specific application can vary. These include, but are not limited to fixation, heat-retrieval method, incubation times, tissue section thickness and detection kit used. Due to the superior sensitivity of these unique reagents, the recommended incubation times and titers listed are not applicable to other detection systems, as results may vary. The data sheet recommendations and protocols are based on exclusive use of Genebio products. Ultimately, it is the responsibility of the investigator to determine optimal conditions.