

Rat Anti-Mouse Ig λ light chains Monoclonal Antibody, FITC Conjugated

Mouse, Monoclonal (Ig λ light chains FITC)

Cat. No. DMAB4865

Lot. No. (See product label)

PRODUCT INFORMATION

Product Overview: Rat Monoclonal Antibody to Mouse Immunoglobulin λ light chains

Clone: KD6-2

Ig Isotype: Rat IgG_{2b}K

Format: Fluorescein (FITC) Conjugate

Quality: 0.5 mg

Specificity: Reacts with mouse λ light chains as demonstrated by ELISA and/or flow cytometry

Applications: Identification and enumeration of λ^+ cells by flow cytometry; Identification and enumeration of λ^+ cells by immunofluorescence microscopy; Enzyme-Linked-Immunosorbent-Assay (ELISA)

Characterization: To ensure lot-to-lot consistency, each batch of monoclonal antibody is tested by flow cytometry and/or ELISA to conform to characteristics of a standard reference reagent. Representative data are included in this product insert.

Working Dilutions: Flow Cytometry: $\leq 1 \mu\text{g}/10^6$ cells;

Other Applications: Since applications vary, each investigator should determine the optimum working dilutions of the product that is appropriate for their specific needs.

Handling And Storage: The fluorescein (FITC) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN₃. Store at 2-8°C

Warning: Reagents contain sodium azide. Sodium azide is very toxic if ingested or inhaled. Avoid contact with skin, eyes, or clothing. Wear eye or face protection when handling. If skin or eye contact occurs, wash with copious amounts of water. If ingested or inhaled, contact a physician immediately. Sodium azide yields toxic hydrazoic acid under acidic conditions. Dilute azide-containing compounds in running water before discarding to avoid accumulation of potentially explosive deposits in lead or copper plumbing.

BACKGROUND

Introduction: Lambda light chain is the smaller of the two types of polypeptide chains in immunoglobulins, consisting of an antigen-binding segment with a variable amino acid sequence, and a constant region with a relatively unchanging amino acid sequence. The lambda light chain gene is located on chromosome 22. The immunoglobulin heavy chains (G, A, M, D, or E) and light chains (kappa or lambda) are produced separately by the plasma cells in the bone marrow. The kappa and lambda molecules are attached to the heavy chains and whole immunoglobulins are assembled, and then conveyed to the surface of the plasma cell. Small amounts of free kappa and lambda light chains are found in the serum of healthy individuals since they are produced in excess. An accurate measurement of serum levels of free light chains in the presence of a great excess of bound light chains has been quite tricky for many years due to their identical structure. A number of diseases affect the production of free light chains by the plasma cells in the bone marrow, causing abnormal levels in the serum, urine or cerebrospinal fluid. Lambda along with kappa light chains can be used as a tumor marker in urine.

Keywords: Ig; Immunoglobulin ; Ig γ light chain; Immunoglobulin γ light chain; Ig lambda light chain; Immunoglobulin lambda light chain

REFERENCES

1. Weigert. M. & Riblet. R. Cold Spring Harb Symp. quant. Biol. 41. 837-846(1976).
2. Bemard, O., Hozumi, N. & Tonegawa, S. Cell 15, 1133-1144(1978)

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