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Product Information

Anti-Human Lambda Light Chains (Bound and Free)-Peroxidase antibody
Mouse monoclonal
Clone HP-6054, purified from hybridoma cell culture

Product Number **SAB4200789**

Product Description

Anti-Human Lambda Light Chains (Bound and Free)-Peroxidase antibody, Mouse monoclonal (mouse IgG2a isotype) is derived from the HP-6054 hybridoma, produced by the fusion of mouse myeloma cells and splenocytes from a mouse immunized with purified human IgG myeloma proteins covalently coupled to polyaminostyrene (PAS) microbeads.[1] The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents (Product Number ISO2). The antibody is purified from culture supernatant of hybridoma cells and is conjugated to horseradish peroxidase.

Anti-Human Lambda Light Chains (Bound and Free)-Peroxidase antibody, Mouse monoclonal specifically recognizes lambda light chains of human immunoglobulins (all isotypes), and is non-reactive with kappa light chains. The antibody recognizes both the heavy chain-bound and the free (Bence Jones) human lambda light chain. The estimated association constant of this antibody to its ligand is 1.2×10^9 L/M.[2] The antibody is recommended to use in various immunological techniques, including ELISA.

Immunoglobulins are composed of two heavy and two light polypeptide chains held together by noncovalent forces and usually by interchain disulfide bridges. The various types of human (and other mammalian) immunoglobulins contain one of the two existing light chain types, either kappa or lambda in which multiple structural differences are reflected in antigenic variety, mainly the N-terminal (variable) domain of the chains.

In monoclonal disorders, such as myeloma and macroglobulinemia, an increase in the level of a single immunoglobulin class can be accompanied by disproportionate increase in either lambda or kappa light chains. In many cases of B cell malignancy there is an increased production of light chains which are not accompanied with heavy chains. These circulate in the various body fluids (blood, cerebral spinal fluid, and tissues) and are also found in enormous amounts as free molecules in the urine (Bence Jones paraproteins).[3-4]

Reagent

Supplied as a lyophilized powder.

Preparation Instructions

Reconstitute the contents of the vial with 0.25 mL of distilled water to a final antibody concentration of ~2 mg/mL. After reconstitution, the solution contains 1% BSA, 2.5% trehalose, and 0.01% thimerosal in 0.01 M sodium phosphate buffered saline.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

Store the lyophilized product at 2–8 °C. For extended storage after reconstitution, keep at –20 °C in working aliquots. Avoid repeated freeze-thaw cycles. For continuous use after reconstitution, keep at 2–8 °C for up to 1 month. Solutions at working dilution should be discarded if not used within 12 hours.

Product Profile

Direct ELISA: a working dilution of 1:16,000-1:32,000 is recommended using 2 μg/mL human IgG lambda light chains for coating.

Note: In order to obtain best results in different techniques and preparations, it is recommended to determine optimal working concentration by titration test.

References

1. Reimer C.B. et al., *Hybridoma*, **3**, 263-75 (1984).
2. Phillips D.J. et al., *Immunol Lett*., **17**, 159-68 (1988).
3. Whicher J.T. et al., *Ann Clin Biochem*., **24**, 119-32 (1987).
4. Black C.M. et al., *J Immunol Methods*, **106**, 71-81 (1988).

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