

## Product Information

### **Monoclonal Anti-Human Lambda Light Chains (Bound and Free), clone HP-6054**

produced in mouse, ascites fluid

Catalog Number **L6522**

#### **Product Description**

Monoclonal Anti-Human Lambda Light Chains (mouse IgG2a isotype) is derived from the hybridoma produced by the fusion of mouse myeloma cells and splenocytes from an immunized mouse. Purified human IgG myeloma proteins covalently coupled to polyamino-styrene (PAS) microbeads were used as the immunogen. The isotype is determined using Sigma's Mouse Monoclonal Antibody Isotyping Reagents, Catalog Number ISO2.

Monoclonal Anti-Human Lambda Light Chains is specific for the 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 in an ELISA. The estimated association constant of this antibody to its ligand is  $1.2 \times 10^9$  L/M.

Monoclonal Anti-Human Lambda Light Chain may be used for the identification of human lambda light chains (bound and free) by ELISA, immunohistology on frozen or fixed tissues, RIA, precipitation assays, or immunoblotting.

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 increases 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 combined with heavy chains. These circulate in the various body fluids (blood, cerebral spinal fluid, and tissues) and are found in enormous amounts as free molecules in the urine (Bence Jones paraproteins).

#### **Reagent**

Provided as ascites fluid with 15 mM sodium azide as a preservative.

#### **Precautions and Disclaimer**

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

#### **Storage**

For continuous use, store at 2-8 °C. For extended storage, the solution may be frozen in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use.

#### **Product Profile**

**ELISA:** an antibody titer of 1:1,000 was determined using 2 µg/ml of human IgG myeloma containing lambda light chains as the coating protein.

**Note:** In order to obtain best results it is recommended that each individual user determine their working dilution by titration assay.

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