

AM32827PU-T**Monoclonal Antibody to Human Lambda Light Chain - Purified**

Quantity:	20 µg
Concentration:	0.2 mg/ml
Background:	Immunoglobulins (Ig) are important effector molecules of adaptive humoral immune responses. They are basically 'Y' shaped molecule consisting of four polypeptide chains, two identical light chains (23kD) and two identical heavy chains (50-70kD), connected by disulphide bonds. Both the light and heavy chains of the immunoglobulin consist of a constant region and variable region domain. The heavy chains are usually of five types, depending upon which the antibody is classified into five types G, A M D and E, while the light is of two types, lambda and kappa. The two light chains in an antibody are always identical, with only one type of light chain, kappa or lambda, is present per antibody in mammals. The ratio of Kappa to Lambda is 70:30, the vast majority of which is bound to heavy-chain in immunoglobulin. In normal individuals low levels of free light-chain are present in serum (kappa, 1.6-15.2 mg/L; Lambda, 0.4-4.2mg/L). However with the occurrence of multiple myeloma or other B-cell malignancies these levels can be greatly elevated and can be found at high levels in the urine.
Host / Isotype:	Mouse / IgG2a
Recommended Isotype Controls:	AM03096PU-N
Clone:	HP6054
Immunogen:	Purified Human IgG myeloma proteins covalently coupled to polyaminostyren microbeads.
Format:	State: Liquid purified IgG fraction from Bioreactor Concentrate Purification: Protein A/G Chromatography Buffer System: 10mM PBS Preservatives: 0.05% Sodium Azide Stabilizers: 0.05% BSA
Applications:	ELISA (Use Antibody without BSA for coating). Western Blot: 0.5-1 µg/ml. Immunoprecipitation: 1-2 µg/500 µg protein lysate. Flow Cytometry: 0.5-1 µg/10 ⁶ cells. Immunofluorescence: 1-2 µg/ml. Immunohistochemistry on Frozen and Fixed-Formalin Paraffin Sections: 0.5-1 µg/ml for 30 minutes at RT. Staining of formalin-fixed tissues requires boiling tissue sections in 10mM Citrate Buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 minutes. Positive Control: 293T, Raji or hPBL cells, Tonsil or Spleen. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Molecular Weight: ~22.5 kDa

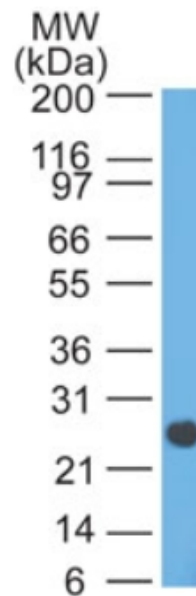
Specificity: This Monoclonal antibody is specific to lambda light chain of immunoglobulin and shows no cross-reaction with lambda light chain or any of the five heavy chains. In mammals, the two light chains in an antibody are always identical, with only one type of light chain, kappa or lambda. The ratio of Kappa to Lambda is 70:30. However, with the occurrence of multiple myeloma or other B-cell malignancies this ratio is disturbed. Antibody to the lambda light chain 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 malignant.
Cellular Localization: Cell Surface, Cytoplasmic and Secrete.

Species Reactivity: Tested: Human.

Storage: Store undiluted at 2-8°C.
 Shelf life: one year from despatch.

General Readings: 1. Reimer et al. Hybridoma 3: 263, 1984.

Pictures: Western blot analysis of Lambda in Human intestine using Lambda Antibody Cat.-No AM32827PU (Clone HP6054).



Formalin-Fixed, Paraffin-Embedded Human tonsil stained with Lambda Antibody Cat.-No AM32827PU (Clone HP6054). Note cell membrane and cytoplasmic staining.

