

**AM33321PU-N****Monoclonal Antibody to Human Lambda Light Chain - Purified**

<b>Quantity:</b>	0.2 mg
<b>Concentration:</b>	0.2 mg/ml
<b>Background:</b>	<p>An antibody is a Y-shaped glycoprotein belonging to the immunoglobulin superfamily. Antibodies are produced by B lymphocytes, and utilized by the immune system to identify and neutralize bacteria, viruses and other foreign targets. Two large heavy and two small light chains connected by disulfide bonds comprise the basic structural antibody unit, and form the antibody Y shape.</p> <p>There are two types of immunoglobulin light chains in mammals, lambda and kappa. Each B lymphocyte expresses only one class, either lambda or kappa. Once determined, the class remains fixed for the life of the B lymphocyte. The total kappa to lambda ratio is approximately 2:1 in serum from a healthy individual, measuring intact whole antibodies and 1:1.5 if measuring free light chains. A highly divergent kappa to lambda ratio can be indicative of a malignancy or inflammatory condition.</p>
<b>Host / Isotype:</b>	Mouse / IgG2a + IgG1
<b>Clone:</b>	LcN-2 + ICO-106
<b>Immunogen:</b>	Purified Human IgG (LcN-2 and ICO-106).
<b>Format:</b>	<b>State:</b> Liquid purified IgG fraction from Bioreactor Concentrate <b>Purification:</b> Affinity Chromatography on Protein A/G <b>Buffer System:</b> 10mM PBS <b>Preservatives:</b> 0.05% Sodium Azide <b>Stabilizers:</b> 0.05% BSA
<b>Applications:</b>	<b>Western Blot:</b> 0.5-1 µg/ml. <b>Immunoprecipitation:</b> 0.5-1 µg/500 µg protein lysate. <b>Immunofluorescence:</b> 0.5-1 µg/ml. <b>Flow Cytometry:</b> 0.5-1 µg/10 <sup>6</sup> cells. <b>Immunohistochemistry on Frozen and Fixed-Formalin Paraffin Sections:</b> 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. <b>Positive Control:</b> 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.
<b>Molecular Weight:</b>	~22.5 kDa
<b>Specificity:</b>	<p>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.</p> <p>Antibody to the lambda light chain is reportedly useful in the identification of</p>

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 secreted.

**Species Reactivity:**

**Tested:** Human.

**Storage:**

Store undiluted at 2-8°C.

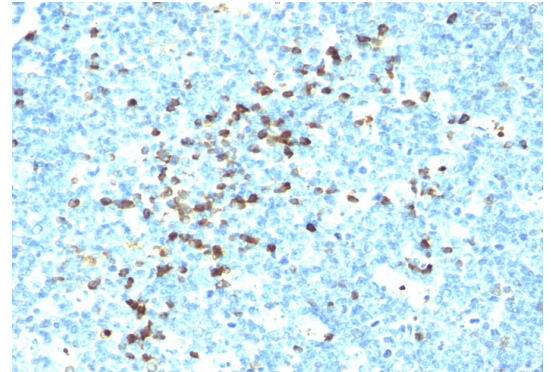
Shelf life: one year from despatch.

**General Readings:**

1. Campbell JP et. al. J Immunol Methods. 2013;391(1-2):1-13.
2. Leung N et. al. Leuk Lymphoma doi:10.3109/10428194.2012.673229 (2012).
3. Villaverde et al. Clin Kidney J 5:59-62 (2012).

**Pictures:**

Formalin-paraffin tonsil stained with Lambda Light Chain Antibody Cat.-No AM33321PU (Clone LcN-2+ICO-106). Note cell membrane & cytoplasmic staining.



Western blot analysis of Lambda Light Chain in human intestine using Lambda Light Chain Antibody Cat.-No AM33321PU (Clone LcN-2+ICO-106).

