



Rev: A  
Release Date: 03/13/2014  
IVD

## Kappa Light Chain (EP171)

Clone	EP171
Source	Rabbit Monoclonal
Cat #	PR049-6ml RTU PR049-3ml RTU CR049-0.5ml Concentrated CR049-0.1ml Concentrated
Regulatory Status	IVD

### Intended Use:

This antibody is intended for use to qualitatively identify specific antigen by light microscopy in formalin fixed, paraffin embedded tissue sections using immunohistochemical detection methodology. Interpretation of any positive or negative staining must be complemented with the evaluation of proper controls and must be made within the context of the patient's clinical history and other diagnostic tests. A qualified pathologist must perform evaluation of the test.

### Summary and Explanation:

Each immunoglobulin molecule consists of two identical heavy chains and two identical light chains. There are two types of light chains designated as kappa and lambda. The gene rearrangement process that generates the immunoglobulin molecule results in either a productive kappa or lambda gene. The mechanics of the rearrangement process normally produce approximately twice as many kappa-bearing cells as lambda. However this ratio is lost during malignant transformation. The kappa light chain antibody labels kappa light chain expressing B-lymphocytes and plasma cells. Other cells may also express kappa light chain due to nonspecific uptake of immunoglobulin. Individual B cells express either kappa or lambda light chains. Monoclonality is generally assumed to be evidence of a malignant proliferation. The pairing of an anti-lambda with a kappa light chain antibody is useful for identifying monoclonality of lymphoid malignancies.

**Immunogen:** A recombinant protein fragment corresponding to human IgA protein.

**Isotype:** Rabbit IgG.

### Reagent Provided:

**Concentrated format:** Antibody to Kappa light chain is affinity purified and diluted in antibody diluent with 1% bovine serum albumin (BSA) and 0.05% sodium azide (NaN<sub>3</sub>). Recommended dilutions: 1:50 – 1:100.

The antibody dilution and protocol may vary depending on the specimen preparation and specific application. Optimal conditions should be determined by individual laboratory.

**Pre-diluted format:** PathnSitu ready to use antibodies are pre tittered to optimal staining conditions. Further dilution may loose the activity and may yield to sub optimal staining.

**Storage Recommendations:** Store at 2°-8°C. Do not use after expiration date provided on the vial.

**Staining Recommendations:**

**Antigen Retrieval Solution:** Use Citrate Buffer (PathnSitu cat # PS007) as antigen retrieval solution  
Heat Retrieval Method: Retrieve sections under steam pressure for 15 min using PathnSitu's MERS (Multi Epitope Retrieval System) then allow solution to cool for 10 minutes then transfer tissue sections/slides to distilled water.

**Primary Antibody:** Cover the tissue sections with primary antibody and incubate for 30 min at room temperature when used PathnSitu PolyExcel Detection System.

**Detection System:** Refer to PathnSitu PolyExcel detection system protocol or manufacturer's detection kit staining protocol when used other vendor detection system.

**Cellular Localization:** Membrane/Cytoplasm

**Positive Control:** Tonsil/B-cell lymphoma

**Troubleshooting:** Follow the antibody specific protocol recommendations according to data sheet provided. If unusual results occur, contact PathnSitu Technical Support at 040-2701 5544 or techsupport@pathnsitu.com.

**Limitations and Warranty:** There are no warranties, expressed or implied, which extend beyond this description. PathnSitu is not liable for property damage, personal injury, or economic loss caused by this product.

**Bibliography:**

1. Dabbs DJ. *Diagnostic Immunohistochemistry* 2010; Churchill Livingstone
2. Taylor CR: *J HistochemCytochem*1978, 26:496-512
3. Marshall-Taylor CE, et al.: *ApplImmunohistochemMolMorphol* 2002, 10:258-262
4. Woda BA, et al.: *Cancer* 1979, 43:303-307

Kappa light chain, EP171 antibody has been created by Epitomics Inc., using Epitomics' proprietary rabbit monoclonal antibody technology covered under Patent No.'s 5,675,063 and 7,402,409.