

**Mouse Monoclonal Anti-Ki67 (K-2)**  
(Catalog No.: ACK02)

**I. INTENDED USE**

This antibody is designed for the specific localization of Ki-67 antigen in formalin-fixed, paraffin-embedded tissue sections. It is intended for research use only.

**II. SPECIFICATIONS**

<b>Specificity:</b>	<b>Anti-Human Ki67</b>
<b>Immunogen:</b>	<b>Recombinant Ki-67 protein fragment close to C-terminus</b>
<b>Clone:</b>	<b>K-2</b>
<b>Species:</b>	<b>Mouse</b>
<b>Immunoglobulin Class:</b>	<b>IgG1</b>

**III. INTRODUCTION**

Anti-Ki67 antibody reacts with a nuclear antigen that is expressed in proliferating cells but not in resting cells. Ki-67 is expressed during all phases of the cell cycle except G0. Expression of Ki-67 antigen closely parallels [<sup>3</sup>H]-thymidine incorporation.

**IV. REAGENT FORMAT**

Mouse Monoclonal antibody containing 15mM sodium azide in 1.0 mL.

**V. DILUTION OF PRIMARY ANTIBODY**

Leica Biosystems concentrated antibodies must be diluted in accordance with staining procedure provided with Leica Biosystems PowerVision+ IHC Detection Systems.

**VI. STORAGE AND HANDLING**

Antibodies should be stored at 2-8°C without further dilution. Fresh dilutions, if required, should be made prior to use and are stable for up to one day at room temperature (18-26°C). Unused portions of antibody preparations should be discarded after one day. This antibody is suitable for use until expiry date when stored at 2-8°C. Do not use product after the expiration date. Positive and negative controls should be run simultaneously with all specimens. If unexpected staining is observed which cannot be explained by variations in laboratory procedures and a problem with the antibody is suspected, contact Leica Biosystems Technical Support or your local distributor.

**VII. PRECAUTIONS**

This antibody contains no hazardous material at a reportable concentration according to U.S. 29 CFR 1910.1200, OSHA Hazard Communication Standard and EC Directive 91/155/EC. Avoid contact of reagents and specimens with skin and mucous membranes. If reagents or specimens come in contact with sensitive area, wash with copious amounts of water. Minimize microbial contamination of reagents or an increase in nonspecific staining may occur.

**VIII. STAINING PROCEDURE**

Refer to the following table for conditions specifically recommended for this antibody. Refer to detection system package insert for guidance on specific staining protocols or other requirements.



<u>Parameter</u>	<u>Leica Biosystems Recommendations</u>
Pretreatment	Tris-based Antigen Retrieval
Control Tissue	Tonsil
User Dilution	1 in 200-300
Incubation Time	1hr.

## **IX. QUALITY CONTROL**

The recommended positive control tissue for this antibody is tonsil. Refer to the appropriate detection system package inserts for guidance on general quality control procedures.

## **X. TROUBLESHOOTING**

Refer to the package inserts of Leica Biosystems PowerVision+ IHC Detection Systems (or other equivalent detection systems) for remedial actions on detection system related issues, or contact Leica Biosystems Technical Support or your local distributor to report unusual staining.

## **XI. EXPECTED RESULTS**

This antibody stains positive in the nucleus of proliferating cells in formalin-fixed, paraffin-embedded tissue sections.

## **XII. LIMITATIONS OF THE PROCEDURE**

IHC is a complex technique involving both histological and immunological detection methods. Tissue processing and handling prior to immunostaining can also cause inconsistent results. Variations in fixation and embedding or the inherent nature of the tissue may cause variations in results (Nadji and Morales, 1983). Endogenous peroxidase activity or pseudoperoxidase activity in erythrocytes and endogenous biotin may cause non-specific staining depending on detection system used. Tissues containing Hepatitis B Surface Antigen (HBsAg) may give false positive with horseradish peroxidase systems (Omata et al, 1980). Improper counterstaining and mounting may compromise the interpretation of results. Leica Biosystems warrants that the materials sold meet our performance specifications from the time of shipment until the expiration date, if stored as recommended. No other warranties or guarantees, expressed or implied, are provided, including warranties for merchantability or fitness for a particular purpose. Under no circumstances shall Leica Biosystems be liable for any damages arising out of the use of the materials.

## **XIII. BIBLIOGRAPHY**

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6. Omata M, Liew CT, Ashcavai M, Peters RI. Nonimmunologic binding of horseradish peroxidase to hepatitis B surface antigen. A possible source of error in immunohistochemistry. *Am J Clin Pathol*. May, 1980; 73 (5):626-632.
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