Product Specification Sheet

Human Ki-67 antibody

□Cat # HKI67-A1	Rabbit Anti-Human Ki-67 antibody #1	**SIZE**: 100 µg
□Cat # HKI67-A2	Rabbit Anti-Human Ki-67 antibody #2	**SIZE**: 100 µg
□Cat # HKI67-A3	Rabbit Anti-Human Ki-67 antibody #3	**SIZE**: 100 µg

Ki-67 is required to maintain individual mitotic chromosomes dispersed in the cytoplasm following nuclear envelope disassembly (PubMed:27362226). Associates with the surface of the mitotic chromosome, the perichromosomal layer, and covers a substantial fraction of the chromosome surface (PubMed:27362226). Prevents chromosomes from collapsing into a single chromatin mass by forming a steric and electrostatic charge barrier: the protein has a high net electrical charge and acts as a surfactant, dispersing chromosomes and enabling independent chromosome motility (PubMed:27362226). Binds DNA, with a preference for supercoiled DNA and AT-rich DNA (PubMed:10878551). Does not contribute to the internal structure of mitotic chromosomes. May play a role in chromatin organization (PubMed:24867636). It is however unclear whether it plays a direct role in chromatin organization or whether it is an indirect consequence of its function in maintaining mitotic chromosomes dispersed.

Source of Antigen or Antibodies

Uniprot: P46013

Host: Rabbit

Clonality: Polyclonal

Purification: Ammonium sulfate followed by peptide affinity chromatography

Immunogen:
HKI67-A1: Synthetic peptide within region 900-1000
HKI67-A2: Synthetic peptide within region 1400-1500
HKI67-A3 Synthetic peptide within region 1800-1900

Species reactivity: Human

Cross reactivity: The peptides used as immunogens exhibit 100% homology with Non-human primates. They contain no significant homology with other species and is not recommended for samples other than Human or Monkey. ADI has other antibodies available for Mouse and Rat Ki-67.

Subcellular Location: Nucleus

Recommended Secondary Antibody: Goat anti-Rabbit IgG-HRP (**ADI cat#20320)**

Form & Storage of Antibodies

□**Affinity pure IgG Solution**
Concentration: 0.5 mg/ml Volume: 200 µl
Supplied in PBS, pH 7.4 + 0.1% BSA
The antibody can be made available carrier free or conjugated to HRP, Biotin, or FITC on request

□ **Lyophilized powder**
Lyophilized from a formulation containing PBS, pH 7.4+3% Trehalose. Reconstitute powder in 200 µl PBS, 0.05% tween-20, and 0.1% BSA.

Storage:

Short-term: 4°C for 1-3 months

Long-term: at –20°C or below in suitable aliquots after reconstitution for 1 year. Do not expose to multiple free/thaw cycles or store working, diluted solutions. Glycerol may be added to a final concentration of 50% and antibodies can be stored un-aliquoted at –20°C.

Recommended Usage

Immunohistochemistry: 1-10 µg/ml. Antigen retrieval is not recommended.

The above concentrations are a *suggestion*, user's must optimize their assay based on their own conditions. The antibody may work in other applications such as Flow Cytometry or Immunocytochemistry. These methods have not been tested by ADI.

This product is for In vitro research use only.

Related materials available from ADI

Catalog#	Description
E2F1-A	Rabbit anti-Transcription factor E2F1 antibody
BRDU11-A	Mouse anti-BrdU monoconal antibody
GFAP11-A	Rabbit Anti-Mouse phospho Glial fibrillary acidic
GFAP21-A	Rabbit Anti-Mouse GFAP antibody
HP5311-A	Rabbit Anti-Human p53 antibody
HP5311-C	Recombinant Human p53 protein control for Western blotting
BCL11-A	Rabbit Anti-Human BCL-2 antibody
BCL12-A	Rabbit Anti-Human BCL-2 antibody
BCL21-A	Rabbit Anti-Mouse BCL-2 antibody
BCL2-C	Recombinant BCL-2 control for Western blotting
HCD34-A	Rabbit anti-Human CD34 antibody
VIM21-A	Rabbit Anti-Mouse Vimentin (Ser299) antibody
VIM31-A	Rabbit Anti-Mouse Vimentin (Ser214) antibody

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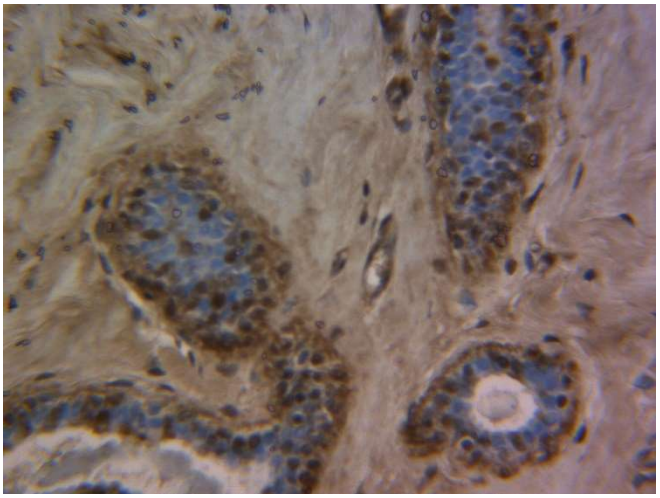

Immunohistochemistry: FFPE Human breast carcinoma slide was heated for 20 minutes at 60°C then deparaffinized. The slide was then blocked for 30 minutes with 2.5% normal goat serum. **HKI67-A1** was diluted to 5 µg/ml in TBST+0.1% BSA and incubated overnight at 4°C. The slides were then washed twice and incubated with 3% hydrogen peroxide for 10 minutes to quench endogenous peroxidase. The slide was washed then incubated with Goat anti-Rabbit IgG HRP polymer detection reagent for 30 minutes at room temperature. The slide was washed twice, incubated with DAB for 3 minutes, washed with distilled water, then counterstained for 1 minute with Gil's II Hematoxylin before being cover-slipped.