Anti-Ki67 Antibody

ER1902-75



Product Type: Rabbit polyclonal IgG, primary antibodies

Species reactivity: Human

Applications: WB, IHC-P, IF-Cell

Molecular Wt: Predicted band size 359 kDa.

Description: Required to maintain individual mitotic chromosomes dispersed in the cytoplasm following

nuclear envelope disassembly. Associates with the surface of the mitotic chromosome, the perichromosomal layer, and covers a substantial fraction of the chromosome surface. 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. Binds DNA, with a preference for supercoiled DNA and AT-rich DNA. Does not contribute to the internal structure of mitotic chromosomes. May play a role in chromatin organization. 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

(Probable).

Immunogen: Synthetic peptide within Human Ki67 aa 1,949-1,998 / 3,256.

Positive control: HepG2 cell lysates, A549, human colon cancer tissue.

Subcellular location: Chromosome, Nucleus

Database links: SwissProt: P46013 Human

Recommended Dilutions:

WB 1:10,000-1:50,000
IHC-P 1:200-1:1,000
IF-Cell 1:50-1:200

Storage Buffer: 1*PBS (pH7.4), 0.2% BSA, 50% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4° C. Store at $+4^{\circ}$ C short term (1-2 weeks). It is recommended to aliquot into

single-use upon delivery. Store at -20 ℃ long term.

Purity: Immunogen affinity purified.

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Images

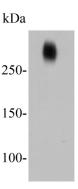


Fig1: Western blot analysis of Ki67 on HepG2 cell lysate. Proteins were transferred to a PVDF membrane and blocked with 5% BSA in PBS for 1 hour at room temperature. The primary antibody (ER1902-75, 1/10000) was used in 5% BSA at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:5,000 dilution was used for 1 hour at room temperature.

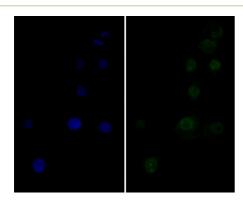


Fig2: ICC staining of Ki67 in A549 cells (green). Formalin fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 10 minutes at room temperature and blocked with 1% Blocker BSA for 15 minutes at room temperature. Cells were probed with the primary antibody (ER1902-75, 1/200) for 1 hour at room temperature, washed with PBS. Alexa Fluor®488 Goat anti-Rabbit IgG was used as the secondary antibody at 1/100 dilution. The nuclear counter stain is DAPI (blue).

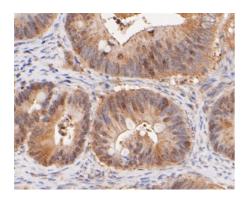


Fig3: Immunohistochemical analysis of paraffin-embedded human colon cancer tissue using anti-Ki67 antibody. The section was pretreated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 20 minutes. The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH $_2$ O and PBS, and then probed with the primary antibody (ER1902-75, 1/400) for 30 minutes at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. MacCallum D E et al. The biochemical characterization of the DNA binding activity of pKi67. J Pathol 191:286-298 (2000).

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