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# Product datasheet for TA336568

## Ki67 (MKI67) Rabbit Polyclonal Antibody

### Product data:

| | |
|---|---|
| **Product Type:** | Primary Antibodies |
| **Applications:** | ChIP, ICC/IF, IHC |
| **Recommended Dilution:** | Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin: 1:3200, Immunohistochemistry: 1:3200, Immunocytochemistry/ Immunofluorescence: 1:50-1:200, Chromatin Immunoprecipitation (ChIP) |
| **Reactivity:** | Human, Mouse |
| **Host:** | Rabbit |
| **Clonality:** | Polyclonal |
| **Immunogen:** | Synthetic peptide made to an internal portion of the human Ki67 protein (within residues 1200-1300). [Swiss-Prot# P46013] |
| **Formulation:** | PBS, 0.02% Sodium azide. |
| **Concentration:** | lot specific |
| **Purification:** | Immunogen affinity purified |
| **Conjugation:** | Unconjugated |
| **Storage:** | Store at 4C. Do not freeze. |
| **Stability:** | Stable for 12 months from date of receipt. |
| **Gene Name:** | marker of proliferation Ki-67 |
| **Database Link:** | NP_001139438<br>Entrez Gene 17345 MouseEntrez Gene 4288 Human<br>P46013 |

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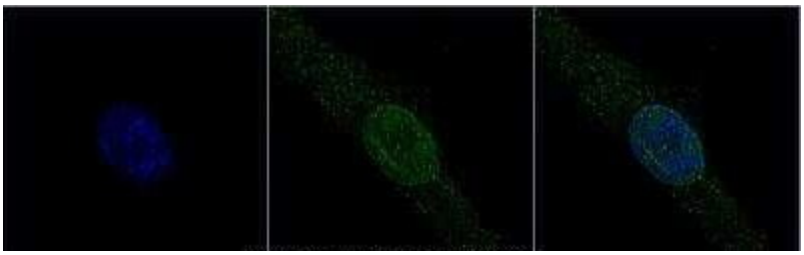
**Background:** Originally discovered employing mouse monoclonal antibody against a nuclear antigen from Hodgkin's lymphoma-derived cell line, this non-histone protein was named Ki67 after researcher's location (Gerdes and colleagues), Ki for Kiel University in Germany and 67 referring to the clone number on the 96-well plate. It interacts with KIF15 as well as MKI67IP, and is suggested to be involved in cell cycle regulation. Ki67 is a large protein with expected molecular weight of about 395 kD and has a very complex localization pattern within the nucleus, one which changes during cell cycle progression. Its expression occurs specially during late G1, S, G2 and M phases of the cell cycle, while in cells undergoing G0 phase, Ki67 remains undetectable. Ki67 undergoes phosphorylation/dephosphorylation during mitosis, is susceptible to proteases and its structure implies that its expression is regulated by proteolytic pathways. Ki67 is associated with nucleolar DFC (dense fibrillary component) and its regulation appears to be tightly controlled (estimated half life is 60-90 min, regardless of the cell position in the cell cycle), presumably by precise synthesis and degradation systems involving proteasome, a protease complex. Due to its association with cell divison process, Ki-67 is routinely used as cellular proliferation marker of solid tumors as well as certain hematological malignancies, and a correlation has been demonstrated between Ki-67 index and the histopathological grade of cancers.

**Synonyms:** KIA; MIB-; MIB-1; PPP1R105

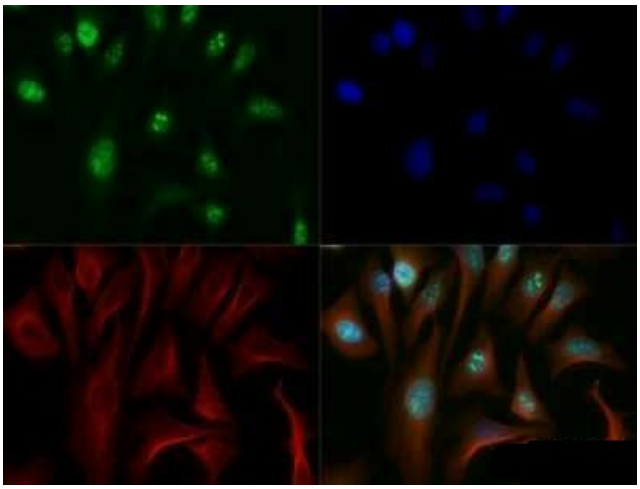
**Note:** This Ki67 antibody is useful for Immunohistochemistry-paraffin embedded sections, Immunocytochemistry/immunofluorescence.

**Protein Families:** Druggable Genome, ES Cell Differentiation/IPS

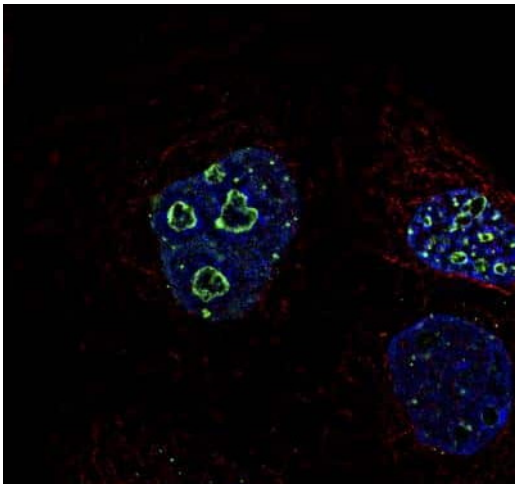
## Product images:



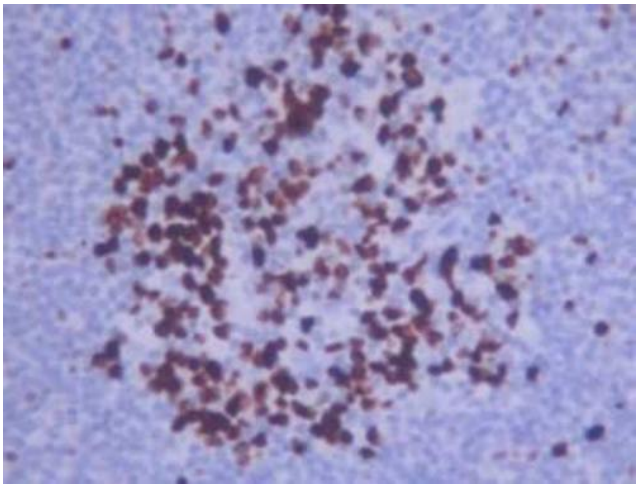
Immunocytochemistry/Immunofluorescence: Ki67/MKI67 Antibody TA336568 - NIH3T3 cells were fixed in 4% paraformaldehyde for 10 minutes and permeabilized in 0.5% Triton X-100 in PBS for 5 minutes. The cells were incubated with anti- NB110-89717 at 2 ug/ml overnight at 4C and detected with an anti-rabbit Dylight 488 (Green) at a 1:1000 dilution for 60 minutes. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 100X objective and digitally deconvolved.



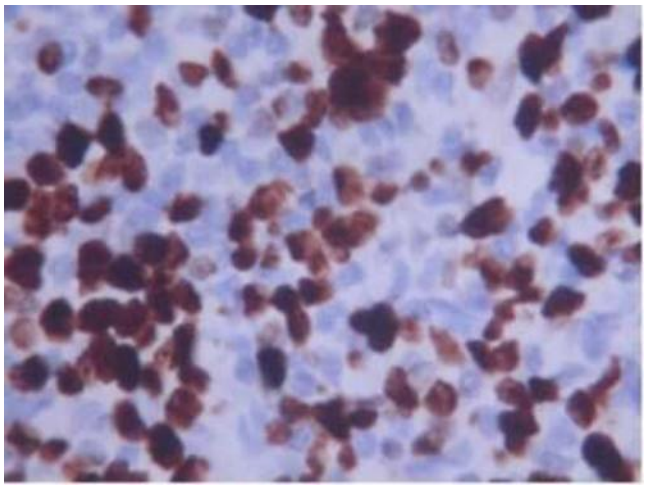
Immunocytochemistry/Immunofluorescence: Ki67/MKI67 Antibody TA336568 - HeLa cells were fixed for 10 minutes using 10% formalin and then permeabilized for 5 minutes using 1X TBS + 0.5% Triton X-100. The cells were incubated with anti-Ki-67/MKI67 (TA336568) at a 1:200 dilution overnight at 4C and detected with an anti-rabbit DyLight 488 (Green) at a 1:500 dilution. Alpha tubulin was used as a co-stain at a 1:1000 dilution and detected with an anti-mouse DyLight 550 (Red) at a 1:500 dilution. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 40X objective.



Immunocytochemistry/Immunofluorescence: Ki67/MKI67 Antibody TA336568 - A431 cells were fixed in 4% paraformaldehyde for 10 minutes and permeabilized in 0.5% Triton X-100 in PBS for 5 minutes. The cells were incubated with anti-TA336568 at 2 ug/ml overnight at 4C and detected with an anti-rabbit Dylight 488 (Green) at a 1:1000 dilution for 60 minutes. Alpha tubulin (DM1A) NB100-690 was used as a co-stain at a 1:1000 dilution and detected with an anti-mouse Dylight 550 (Red) at a 1:1000 dilution. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 100X objective and digitally deconvolved.



Immunohistochemistry: Ki67/MKI67 Antibody TA336568 - Detection of human lymph node. (20X)



Immunohistochemistry: Ki67/MKI67 Antibody TA336568 - Detection of human lymph node. (40X)