

Mouse anti-Human Ki67 Monoclonal Antibody | anti-MKI67 antibody

Anti-Ki67 Antibody (monoclonal, 5E12)

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA19350	Mouse	Human	Immunohistochemistry, Immunocytochemistry, Immunofluorescence, Flow Cytometry, Functional Assay

PRODUCT SYNONYMS

Ki67; Monoclonal Antibody; Anti-Ki67 Antibody (monoclonal; 5E12); MKI67; Proliferation marker protein Ki-67; Antigen identified by monoclonal antibody Ki-67; Antigen KI-67; Antigen Ki67; antigen identified by monoclonal antibody Ki-67; anti-MKI67 antibody

PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human
Clonality	Monoclonal
Isotype	Mouse IgG2b
Clone Number	5E12
Specificity	Mouse IgG monoclonal antibody for Ki67 detection.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl and 0.2mg Na2HPO4.
Applicable Applications for anti-MKI67 antibody	IHC (Immunohistochemistry), ICC (Immunocytochemistry), IF (Immunofluorescence), FCM/FACS (Flow Cytometry)
Application Notes	IHC-P: 2-5ug/ml Human ICC/IF: 5ug/ml Human IF: 5ug/ml Human FC/FACS/FCM: 1-3ug/1x106 cells Human
Immunogen	E Coli-derived human Ki67 recombinant protein (Position: K2860-I3256).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Recommended Detection Systems	Recommended Detection Systems
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.



FCM (Flow Cytometry)

Figure 8. Flow Cytometry analysis of Jurkat cells using anti-Ki67 antibody (AAA19350).Overlay histogram showing Jurkat cells stained with AAA19350 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-Ki67 Antibody (AAA19350, 1μg/1x106 cells) for 30 min at 20 degree C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10μg/1x106 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was mouse IgG (1μg/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



IF (Immunofluorescence)

Figure 7. IF analysis of Ki67 using anti-Ki67 antibody (AAA19350).Ki67 was detected in paraffin-embedded section of human tonsil tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 5μg/mL mouse anti-Ki67 Antibody (AAA19350) overnight at 4 degree C. Biotin conjugated goat anti-mouse IgG (BA1001) was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using DyLight®488 Conjugated Avidin (BA1128). The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



IF (Immunofluorescence)

Figure 6. IF analysis of Ki67 using anti- Ki67 antibody (AAA19350).Ki67 was detected in immunocytochemical section of A431 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5μg/mL mouse anti- Ki67 Antibody (AAA19350) overnight at 4 degree C. DyLight®488 Conjugated Goat Anti-Mouse IgG (BA1126) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37 degree C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



IHC (Immunohistochemistry)

Figure 5. IHC analysis of Ki67 using anti-Ki67 antibody (AAA19350).Ki67 was detected in paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/ml mouse anti-Ki67 Antibody (AAA19350) overnight at 4 degree C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen.



IHC (Immunohistochemistry)

Figure 4. IHC analysis of Ki67 using anti-Ki67 antibody (AAA19350).Ki67 was detected in paraffin-embedded section of human liver tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/ml mouse anti-Ki67 Antibody (AAA19350) overnight at 4 degree C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen.



IHC (Immunohistochemistry)

Figure 3. IHC analysis of Ki67 using anti-Ki67 antibody (AAA19350).Ki67 was detected in paraffin-embedded section of human esophageal squamous carcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/ml mouse anti-Ki67 Antibody (AAA19350) overnight at 4 degree C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen.

ADDITIONAL INFORMATION

Related Product Information for anti-MKI67 antibody	Ki-67(Proliferation-related Ki-67 antigen), also known as MKI67 or KIA, is a protein that in humans is encoded by the MKI67 gene. From study of a panel of human-rodent somatic cell hybrids, it has been demonstrated that a gene involved in the expression of the MKI67 antigen is located on chromosome 10. By in situ hybridization, Fonatsch et al. (1991) regionalized the MKI67 gene to chromosome 10q25-qter. By FISH, Traut et al. (1998) mapped the mouse Mki67 gene to chromosome 7F3-F5. Antigen KI-67 is a nuclear protein that is associated with and may be necessary for cellular proliferation. Furthermore it is associated with ribosomal RNA transcription. Inactivation of antigen KI-67 leads to inhibition of ribosomal RNA synthesis.
References	1. Fonatsch, C., Duchrow, M., Rieder, H., Schluter, C., Gerdes, J. Assignment of the human Ki-67 gene (MKI67) to 10q25-qter. Genomics 11: 476-477, 1991. 2. Schonk, D. M., Kuijpers, H. J. H., vanDrunen, E., vanDalen, C. H., Geurts van Kessel, A. H. M., Verheijen, R., Ramaekers, F. C. S. Assignment of the gene(s) involved in the expression of the proliferation-related Ki-67 antigen to human chromosome 10. Hum. Genet. 83: 297-299, 1989. 3. Traut, W., Scholzen, T., Winking, H., Kubbutat, M. H. G., Gerdes, J. Assignment of the murine Ki-67 gene (Mki67) to chromosome band 7F3-F5 by in situ hybridization. Cytogenet. Cell Genet. 83: 12-13, 1998.

NCBI AND UNIPROT INFORMATION

NCBI GI #	225543215
NCBI GeneID	4288
NCBI Accession #	NP_001139438.1
NCBI GenBank Nucleotide #	NM_001145966.1
UniProt Accession #	P46013; Q5VWH2
Molecular Weight	358,694 Da
NCBI Official Full Name	antigen KI-67 isoform 2
NCBI Official Synonym Full Names	antigen identified by monoclonal antibody Ki-67
NCBI Official Symbol	MKI67
NCBI Official Synonym Symbols	KIA
NCBI Protein Information	antigen KI-67; proliferation-related Ki-67 antigen
UniProt Protein Name	Antigen KI-67
UniProt Gene Name	MKI67
UniProt Entry Name	KI67_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/monoclonal/ki67-antibody-clone-5e12-immunohistochemistry-immunocytochemistry-immunofluorescence-flow-cytometry-elisa/19350>