BOSTER
antibody and ELISA experts

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Anti-Ki67 Antibody Picoband® (monoclonal, 5C7)

Catalog Number: M00254-9

About MKI67

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.

Overview

Product Name	Anti-Ki67 Antibody Picoband® (monoclonal, 5C7)
Reactive Species	Human
Description	Boster Bio Anti-Ki67 Antibody Picoband® (monoclonal, 5C7) catalog # M00254-9. Tested in Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	Flow Cytometry, IF, IHC, ICC, WB
Clonality	Monoclonal 5C7
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.
Storage Instructions	At -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freezing and thawing.
Host	Mouse
Uniprot ID	P46013

Technical Details

Immunogen	E. coli-derived human Ki67 recombinant protein (Position: K2860-I3256).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Mouse IgG (EK1001) for Western blot, and HRP Conjugated anti-Mouse IgG Super Vision Assay Kit (SV0001-1) for IHC(P) and ICC.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Mouse IgG2b
Form	Lyophilized

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Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5 ug/ml, Human Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Human Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human Flow Cytometry (Fixed), 1-3 ug/1x10^6 cells, Human

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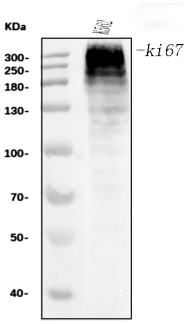
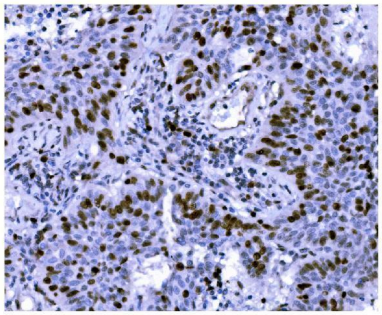
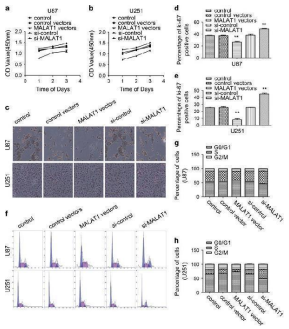
Anti-Ki67 Antibody Picoband® (monoclonal, 5C7) (M00254-9) Images



Western blot analysis of Ki67 using anti-Ki67 antibody (M00254-9). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human K562 whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-Ki67 antigen affinity purified monoclonal antibody (Catalog # M00254-9) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001) with Tanon 5200 system. A specific band was detected for Ki67 at approximately 358 kDa. The expected band size for Ki67 is at 358 kDa.



IHC analysis of Ki67 using anti-Ki67 antibody (M00254-9). Ki67 was detected in a paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml mouse anti-Ki67 Antibody (M00254-9) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.



Effects of upregulation and downregulation of MALAT1 on U87 and U251 cell proliferation. (a and b) Cellular proliferation of untransfected or transfected U87 and U251 cells was measured using a CCK-8 assay daily for 3 days. (c) Cellular proliferation of untransfected or transfected U87 and U251 cells was measured by testing the expression of Ki-67. (d and e) The percentage of Ki-67-positive cells was calculated. Results are expressed as mean±S.D. from three independent experiments (P

Effects of overexpression of MALAT1 on proliferation in vivo . (a and b) Overexpression of MALAT1 reduced the growth of glioma in a subcutaneous glioma nude model. (c and d) MALAT1 expression in subcutaneous and incratranial tumors (P

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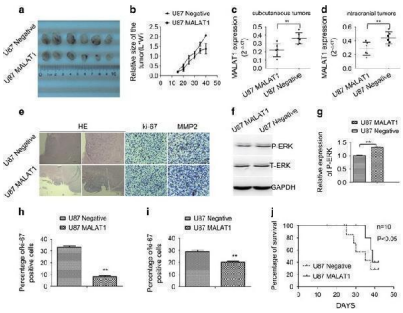
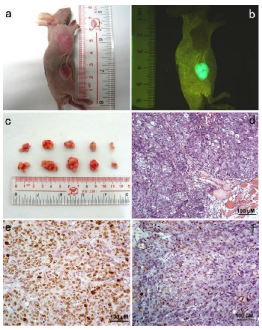
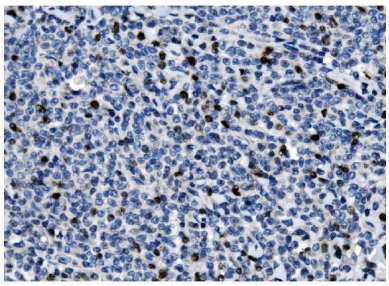
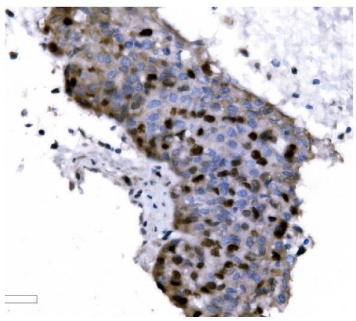




Cripto-1 gene silencing suppresses cell proliferation in vivo . (a) representative mouse bearing tumors (up was in CNE-2 control group, down was in CNE-2/GFP + /Cripto-1 - group). (b) external whole-body fluorescence images of the same mouse. (c) the external images of xenotransplant tumors (top was in CNE-2/GFP + /Cripto-1 - group, bottom was in CNE-2 control group). (d) H&E stains of xenotransplant tumors, (×400). (e) expression of Ki67 in xenotransplant tumors of CNE-2 control group (×400). (f) expression of Ki67 in xenotransplant tumors of CNE-2/GFP + /Cripto-1 - group (×400). Index in PubMed under a CC BY license. PMID: 19732464



IHC analysis of Ki67 using anti-Ki67 antibody (M00254-9). Ki67 was detected in a paraffin-embedded section of human lymphomas tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml mouse anti-Ki67 Antibody (M00254-9) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.



IHC analysis of Ki67 using anti-Ki67 antibody (M00254-9). Ki67 was detected in a paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml mouse anti-Ki67 Antibody (M00254-9) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

IHC analysis of Ki67 using anti-Ki67 antibody (M00254-9). Ki67 was detected in a paraffin-embedded section of human esophageal squamous carcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml mouse anti-Ki67 Antibody (M00254-9)

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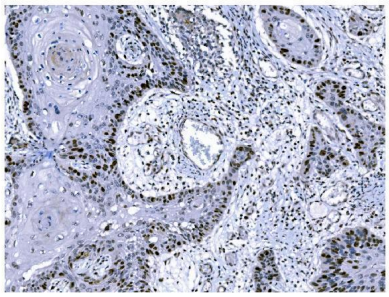
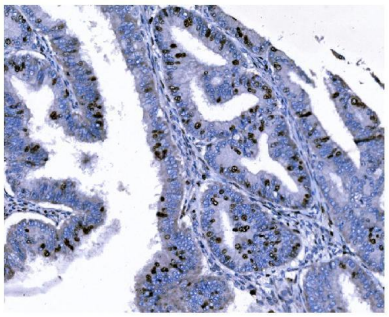
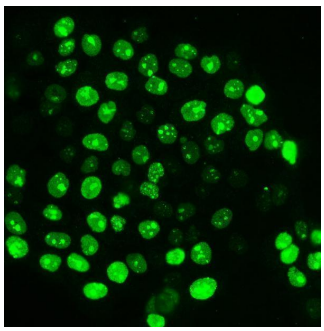


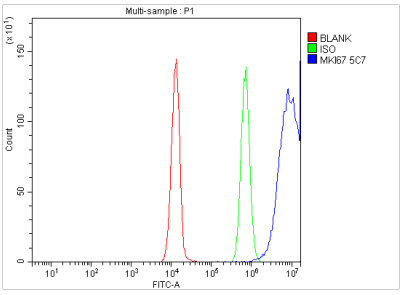
overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.



IHC analysis of Ki67 using anti-Ki67 antibody (M00254-9). Ki67 was detected in a paraffin-embedded section of human cervical cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml mouse anti-Ki67 Antibody (M00254-9) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.



IF analysis of Ki67 using anti-Ki67 antibody (M00254-9). Ki67 was detected in an immunocytochemical section of A431 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL mouse anti-Ki67 Antibody (M00254-9) overnight at 4°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°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Flow Cytometry analysis of Jurkat cells using anti-Ki67 antibody (M00254-9). Overlay histogram showing Jurkat cells stained with M00254-9 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-Ki67 Antibody (M00254-9, 1 ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10 ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1 ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

IHC analysis of Ki67 using anti-Ki67 antibody (M00254-9). Ki67 was detected in a paraffin-embedded section of HepG2 subcutaneous xenograft in nude mouse tissue. Heat mediated antigen retrieval was performed in EDTA buffer

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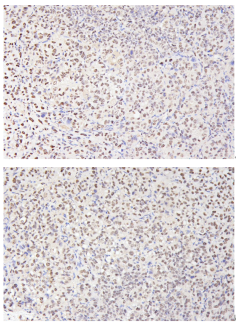

(pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1:200 mouse anti-Ki67 Antibody (M00254-9) overnight at 4°C. Two step IHC kit was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

9 Publications Citing This Product

1. PubMed ID: 10.1161/ATVBAHA.120.315525, Circular RNA Calm4 Regulates Hypoxia-Induced Pulmonary Arterial Smooth Muscle Cells Pyroptosis via the Circ-Calm4/miR-124-3p/PDCD6 Axis

2. PubMed ID: 10.1186/1471-2407-9-315, Cripto-1 overexpression is involved in the tumorigenesis of nasopharyngeal carcinoma

3. PubMed ID: 10.1016/j.theriogenology.2019.10.007, Moderate hypoxia modulates ABCG2 to promote the proliferation of mouse spermatogonial stem cells by maintaining mild ROS levels

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