Purified anti-mouse Ki-67 Antibody

Catalog# / Size	652401 / 25 µg 652402 / 100 µg
Clone	16A8
Regulatory Status	RUO
Other Names	KIA, proliferation-related Ki-67 antigen
Isotype	Rat IgG2a, κ
Description	The nuclear protein Ki-67 was first identified by the monoclonal antibody Ki-67, which was generated by immunizing mice with nuclei of the L428 Hodgkin lymphoma cell line. Ki-67 protein plays an essential role in ribosomal RNA transcription and cell proliferation. Expression of Ki-67 occurs during G1, S, G2, and M phase, while in G0 phase the Ki-67 protein is not detectable. Ki-67 is strongly expressed in proliferating cells and has been reported as a prognostic marker in various tumors.

Product Details

Verified Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	*E. coli* expressed partial mouse Ki-67 recombinant protein, 1816-2163 aa.
Formulation	This antibody is provided in phosphate-buffered solution, pH 7.2, containing 0.05% sodium azide.
Preparation	The antibody was purified by affinity chromatography.
Concentration	0.5 mg/ml
Storage & Handling	Upon receipt, store undiluted between 2°C and 8°C.
Application	FC - *Quality tested* WB, ICC, IHC-F - *Verified*
Recommended Usage	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is ≤ 0.5 µg per million cells in 100 µl volume. For western blotting, suggested working dilution(s): Use 5 µl per 5 ml antibody dilution buffer for each mini-gel (0.5 µg/ml). For immunocytochemistry, a concentration range of 1.25 - 5.0 µg/mL is recommended. For immunohistochemistry on frozen tissue sections, a concentration range of 2.5 - 10.0 µg/mL is suggested. Additionally, each lot of this antibody is quality control tested by our Ki-67 staining protocol below. It is recommended that the reagent be titrated for optimal performance for each application.

Application References

(PubMed link indicates BioLegend citation)

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Product Citations

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RRID

AB_11203533 (BioLegend Cat. No. 652401)
AB_11204254 (BioLegend Cat. No. 652402)

Antigen Details

Structure

325 kD protein containing a forkhead-associated domain (FHA) and 13 tandem repeats

Distribution

Nucleus and chromosome

Function

Required for cell cycle progression and proliferation

Interaction

Interacts with KIF15; binds to MKI67IP through FHA domain

Biology Area

Cell Biology, Cell Cycle/DNA Replication, Transcription Factors

Molecular Family

Nuclear Markers

Antigen References

1. Starborg M, *et al.* 1996. *J. Cell. Sci.* 109:143.
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Gene ID

17345

Related Protocols

Immunohistochemistry Protocol for Frozen Sections

Cell Surface Flow Cytometry Staining Protocol

Immunocytochemistry Staining Protocol

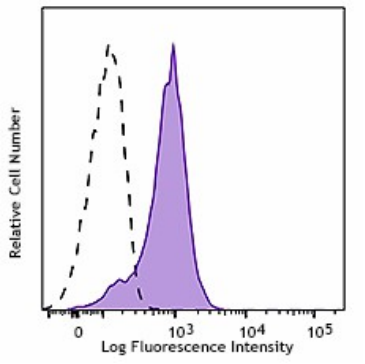
Western Blotting Protocol

Ki-67 Flow Cytometry Staining Protocol

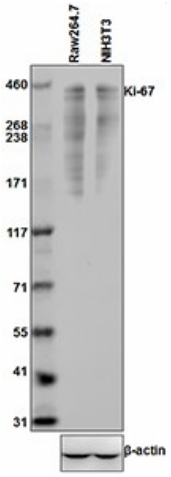
Other Formats

Purified anti-mouse Ki-67, PE anti-mouse Ki-67, APC anti-mouse Ki-67, Alexa Fluor® 647 anti-mouse Ki-67, FITC anti-mouse Ki-67, Brilliant Violet 421™ anti-mouse Ki-67, Brilliant Violet 605™ anti-mouse Ki-67, Alexa Fluor® 488 anti-mouse Ki-67, Alexa Fluor® 700 anti-mouse Ki-67, Pacific Blue™ anti-mouse Ki-67, PerCP/Cyanine5.5 anti-mouse Ki-67, PE/Cyanine7 anti-mouse Ki-67, PE/Dazzle™ 594 anti-mouse Ki-67

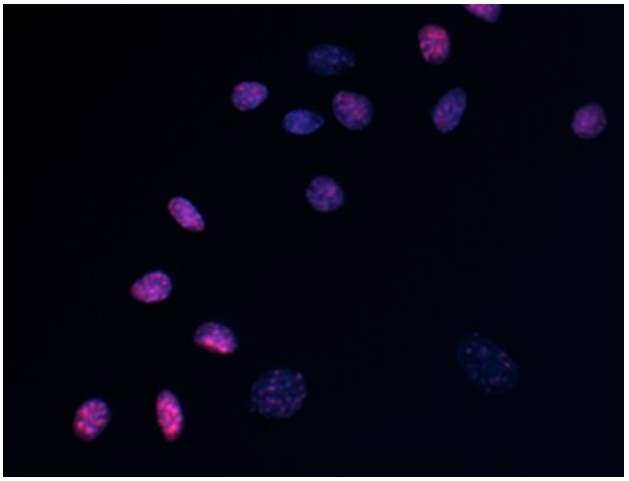
Product Data



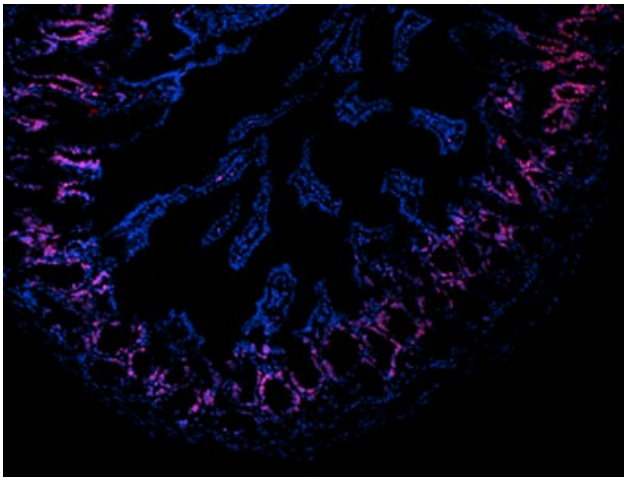
Con A-stimulated (3 days) C57BL/6 mouse splenocytes were fixed and permeabilized with 70% ethanol, then stained with Ki-67 (clone 16A8) purified antibody (filled histogram) or rat IgG2a, κ isotype control (open histogram) followed by anti-rat IgG PE.



Total cell lysates (15 µg protein) from Raw264.7 and NIH3T3 were resolved by 3-8% Tris-Acetate gel electrophoresis, transferred to nitrocellulose, and probed with mouse Ki-67 antibody (clone 16A8). Proteins were visualized using a goat anti-rat IgG secondary antibody conjugated to HRP and chemiluminescence detection. Direct-Blot™ HRP anti-β-actin was used as a loading control.



TE-71 cells were fixed with 1% paraformaldehyde (PFA) for ten minutes, permeabilized with 0.5% Triton X-100 for ten minutes, and blocked with 5% FBS for 30 minutes. Then the cells were intracellularly stained with 2.5 µg/mL of purified Ki-67 (clone 16A8) in 5% FBS overnight at 4°C, followed by Alexa Fluor® 647 goat anti-rat IgG (clone Poly4054, red) for two hours. Nuclei were counterstained with DAPI (blue). The image was captured with a 40X objective.



C57BL/6 mouse frozen intestine section was fixed with 4% paraformaldehyde (PFA) for ten minutes, permeabilized with 0.5% Triton X-100 for ten minutes, and blocked with 5% FBS plus 5% goat serum for 30 minutes at room temperature. Then the section was stained with 5 µg/mL purified Ki-67 (clone 16A8) in 5% FBS overnight at 4°C, followed by Alexa Fluor® 647 goat anti-rat IgG (clone Poly4054, red). Nuclei were counterstained with DAPI (blue). The image was captured with a 10X objective.

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