Purified anti-human Ki-67 Antibody

Catalog# / Size	398502 / 100 µg
Clone	W17211A
Regulatory Status	RUO
Other Names	MKI67, Proliferation Marker Protein Ki-67, Antigen Ki67
Isotype	Rat IgG2a, κ
Description	Antigen Ki-67 is a nuclear protein expressed as two isoforms with molecular weights of 395 and 345 kD. Both isoforms contain one forkhead-associated domain and 16 concatenated "Ki-67 repeats," each containing the epitope recognized by the mAb Ki-67. The antigen Ki-67 interacts with Hklp2, hNIFK, and chromobox protein homolog 1, 3, and 5. Ki-67 is required for cell proliferation and its expression is restricted to the phases G_1, S, G_2, and M of the cell cycle. This characteristic makes Ki-67 an excellent marker for proliferating cells and is commonly used as one of the prognostic factors in cancer studies. Ki-67 has also been used to study myocyte proliferation after myocardial infarction as well as lymphocyte proliferation during infection, and has been used in neurons of patients with different neuropathologies.

Product Details

Verified Reactivity	Human
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	Human Ki-67 recombinant protein
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide
Preparation	The antibody was purified by affinity chromatography.
Concentration	0.5 mg/mL
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C.
Application	IHC-P - *Quality tested*
Recommended Usage	Each lot of this antibody is quality control tested by formalin-fixed paraffin-embedded immunohistochemical staining. For immunohistochemistry, a concentration range of 5 - 10 µg/mL is suggested. It is recommended that the reagent be titrated for optimal performance for each application.
RRID	AB_2820065 (BioLegend Cat. No. 398502)

Antigen Details

Structure	Two isoforms with molecular weights of 395 and 345 kD, one forkhead-associated domain, 16 concatenated Ki-67 repeats, located in nucleus
Distribution	Expressed in the phases G_1, S, G_2, and M of the cell cycle
Function	Required for cell proliferation
Interaction	Chromobox protein homolog 1, 3 and 5, Hklp2, and hNIFK
Biology Area	Cell Biology, Cell Cycle/DNA Replication, DNA Repair/Replication
Molecular Family	Nuclear Markers
Antigen References	

1. Byeon IJ, *et al.* 2005. *Nat. Struct. Mol. Biol.* 12:987.
2. Yerushalmi R, *et al.* 2010. *Lancet. Oncol.* 11:174.
3. Drazen JM. *et al.* 2001. *N. Engl. J. Med.* 344:1750.
4. Sachsenberg N, *et al.* 1998. *J. Exp. Med.* 187:1295.
5. Nagy Z, *et al.* 1997. *Acta. Neuropathol.* 93:294.

Gene ID 4288

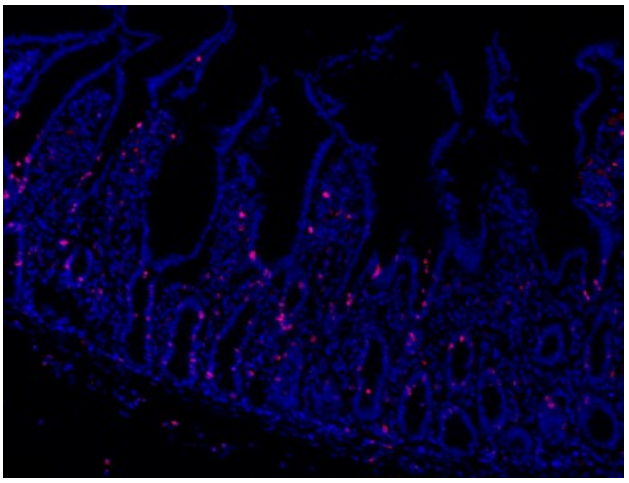
Related Protocols

Immunohistochemistry Protocol for Paraffin-Embedded Sections

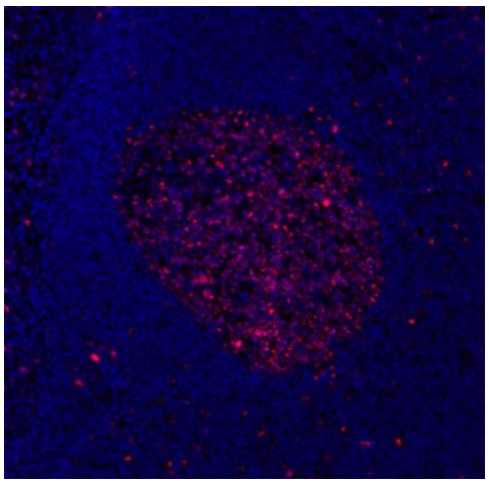
Other Formats

Purified anti-human Ki-67

Product Data



Human paraffin-embedded intestine tissue slices were prepared with a standard protocol of deparaffinization and rehydration. Antigen retrieval was done with Citrate-Buffered 1X pH 6.0 at 95°C for 40 minutes. Tissue was washed with PBS/0.05% Tween 20 twice for five minutes, permerilized with 0.5% Triton X-100 for 10 minutes and blocked with 5% FBS and 0.2% gelatin for 30 minutes. Then, the tissue was stained with 10 µg/mL of purified anti-human Ki-67 (clone W17211A) antibody overnight at 4°C. On the next day, tissue was incubate with Alexa Fluor® 594 goat anti-rat IgG (clone poly4054) antibody (red). Nuclei were counterstained with DAPI (blue). The image was scanned with a 10X objective and stitched with MetaMorph® software.



Human paraffin-embedded tonsil tissue slices were prepared with a standard protocol of deparaffinization and rehydration. Antigen retrieval was done with Citrate-Buffered 1X pH 6.0 at 95°C for 40 minutes. Tissue was washed with PBS/0.05% Tween 20 twice for five minutes, permerilized with 0.5% Triton X-100 for 10 minutes and blocked with 5% FBS and 0.2% gelatin for 30 minutes. Then, the tissue was stained with 10 µg/mL of purified anti-human Ki-67 (clone W17211A) antibody overnight at 4°C. On the next day, tissue was incubate with Alexa Fluor® 594 goat anti-rat IgG (clone poly4054) antibody (red). Nuclei were counterstained with DAPI (blue). The image was scanned with a 10X objective and stitched with MetaMorph® software.

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