

# Ki-67 Recombinant Rabbit Monoclonal Antibody (SP6)

Product Details	
Size	500 µL
Species Reactivity	Human, Mouse, Non-human primate, Rat
Published Species	Dog, Rabbit, Rat, Pig, Sheep, Bovine, Mouse, Human, Rhesus monkey
Host/Isotype	Rabbit / IgG
Class	Recombinant Monoclonal
Type	Antibody
Clone	SP6
Conjugate	Unconjugated
Immunogen	Synthetic peptide within Human Ki67 aa 1200-1300
Form	Liquid
Concentration	0.031 mg/mL
Purification	Protein A
Storage buffer	PBS, pH 7.2, with 1% BSA
Contains	0.1% sodium azide
Storage Conditions	Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.
RRID	AB_10979488

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	1:1000	1 Publication
Immunocytochemistry (ICC)	1:250	46 Publications
Immunofluorescence (IF)	1:250	-
Immunohistochemistry (Frozen) (IHC (F))	1:1000	10 Publications
Immunohistochemistry (Paraffin) (IHC (P))	1:200	43 Publications
Western Blot (WB)	1:100	7 Publications
Immunohistochemistry (IHC)	-	532 Publications
Miscellaneous PubMed (Misc)	-	3 Publications
Neutralization (Neu)	-	1 Publication

## Product Specific Information

Staining of formalin-fixed tissues requires boiling tissue section in 10 mM citrate buffer, pH 6.0 for 10-20 minutes followed by cooling at room temperature for 20 minutes.

Recommended positive controls:

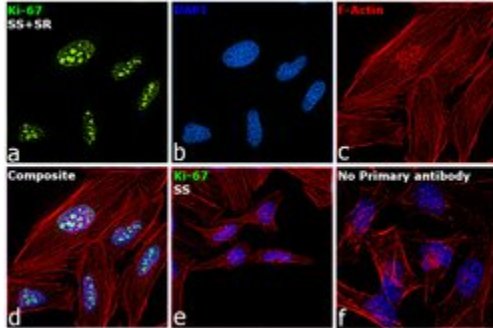
IHC (P) - Human tonsil and testis tissue, common marmoset spleen tissue, rat esophagus, small intestine and liver tissue, mouse embryonic skin tissue

IHC (F) - Rat lymph node tissue, transgenic mouse spinal cord tissue

ICC/IF - HAP1 cells, human cardiac stem cells, HEP-2 cells, rat cardiomyocytes

Flow - HAP1 cells

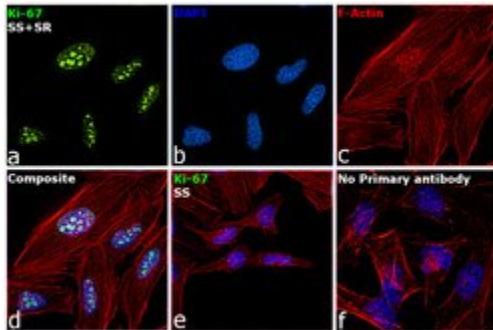
## Advanced Verification Data



### Ki-67 Antibody (MA5-14520)

Detection of altered expression of target protein by cell treatment demonstrates antibody specificity. Immunofluorescence analysis of Ki-67 using Ki-67 Monoclonal Antibody (SP6) (Product # MA5-14520) shows increased expression of Ki-67 in HeLa cell line upon serum starvation (36 hours) followed by serum release (6 hours). By comparison, reduced expression of Ki-67 was seen in HeLa cell line upon serum starvation (36 hours) alone. Cell treatment validation info.

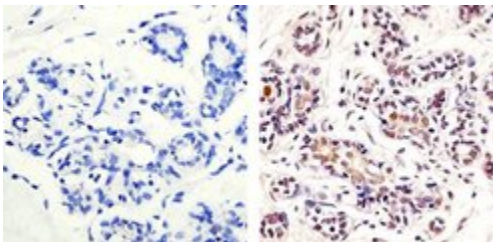
## Product Images For Ki-67 Recombinant Rabbit Monoclonal Antibody (SP6)



### Ki-67 Antibody (MA5-14520) in IF

Immunofluorescence analysis of Ki-67 was performed using 70% confluent log phase HeLa cells serum starved (SS) for 36 hours followed by serum release (SR) for 6 hours. The cells were fixed with 4% paraformaldehyde for 10 minutes, permeabilized with 0.1% Triton™ X-100 for 15 minutes, and blocked with 2% BSA for 1 hour at room temperature. The cells were labeled with Ki-67 Monoclonal Antibody (SP6) (Product # MA5-14520) at 1:250 dilution in 0.1% BSA, incubated at 4 degree Celsius overnight and then labeled with Donkey anti-Rabbit IgG (H+L) Highly Cross-Adsorbed Secondary Antibody, Alexa Fluor Plus 488 (Product # A32790) at a dilution of 1:2000 for 45 minutes at room temperature (Panel a: green). Nuclei (Panel b: blue) were stained with SlowFade® Gold Antifade Mountant with DAPI (Product # S36938). F-actin (Panel c: red) was stained with Rhodamine Phalloidin (Product # R415, 1:300). Panel d represents the merged image showing nuclear localization. Panel e represents the serum starved cells with reduced signal. Panel f represents control cells with no primary antibody to assess background. The images were captured at 60X magnification.

### Ki-67 Antibody (MA5-14520) in IHC (P)



Immunohistochemistry analysis of Ki-67 (SP6) showing staining in the nucleus of paraffin-embedded human breast tissue (right) compared to a negative control without primary antibody (left). To expose target proteins, antigen retrieval was performed using 10mM sodium citrate (pH 6.0), microwaved for 8-15 min. Following antigen retrieval, tissues were blocked in 3% H<sub>2</sub>O<sub>2</sub>-methanol for 15 min at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with a Ki-67 Antibody (SP6) Rabbit Monoclonal Antibody (Product # MA5-14520) diluted in 3% BSA-PBS at a dilution of 1:20 for 1 hour at 37°C in a humidified chamber. Tissues were washed extensively in PBST and detection was performed using an HRP-conjugated secondary antibody followed by colorimetric detection using a DAB kit. Tissues were counterstained with hematoxylin and dehydrated with ethanol and xylene to prep for mounting.

643 References

Western Blot (7)

International journal of cancer

**Heparanase promotes growth, angiogenesis and survival of primary breast tumors.**

"MA5-14520 was used in western blot to investigate the role of heparanase in breast tumors"

Authors: Cohen I,Pappo O,Elkin M,San T,Bar-Shavit R,Hazan R,Peretz T,Vlodavsky I,Abramovitch R

**Species**  
Human

**Dilution**  
Not Cited

**Year**  
2006

Oncotarget

**Distinct functions and regulation of epithelial progesterone receptor in the mouse cervix, vagina, and uterus.**

"MA5-14520 was used in Western Blotting to describe the regulation and function in the cervix of of progesterone receptor in the mouse vagina and uterus."

Authors: Mehta FF,Son J,Hewitt SC,Jang E,Lydon JP,Korach KS,Chung SH

**Species**  
Mouse

**Dilution**  
Not Cited

**Year**  
2016

[View more WB references on thermofisher.com](#)

Immunohistochemistry (532)

Human pathology

**Signature patterns of human papillomavirus type 16 in invasive anal carcinoma.**

"MA5-14520 was used in immunohistochemistry to study HPV16 infection in patients with invasive anal carcinoma"

Authors: Valmary-Degano S,Jacquin E,Prétet JL,Monnien F,Girardo B,Arbez-Gindre F,Joly M,Bosset JF,Kantelip B,Mougin C

**Species**  
Human

**Dilution**  
1:400

**Year**  
2013

Translational oncology

**Loss of NADPH quinone oxidoreductase in the prostate and enhanced serum levels of cytokine-induced neutrophil chemoattractant 2alpha in hormone-stimulated noble rats: potential role in prostatic intraepithelial neoplasia development.**

"MA5-14520 was used in immunohistochemistry to study the role of NADPH quinone oxidoreductase and cytokine-induced neutrophil chemoattractant 2alpha in prostate cancer development"

Authors: Ghosh R,Schoolfield J,Yeh IT,Smith ML,Hursting SD,Chan DC,Lucia MS,Kumar AP

**Species**  
Rat

**Dilution**  
Not Cited

**Year**  
2009

[View more IHC references on thermofisher.com](#)

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IHC (P) (43)

IHC (F) (10)

ICC (46)

Flow (1)

Neu (1)

Misc (3)

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