

# Ki-67 Monoclonal Antibody (SolA15), eBioscience™

## Product Details

Size	2 mg
Species Reactivity	Dog, Cynomolgus monkey, Human, Mouse, Non-human primate, Rat
Published Species	Dog, Rat, Pig, Mustelid, Mouse, Human
Host/Isotype	Rat / IgG2a, kappa
Class	Monoclonal
Type	Antibody
Clone	SolA15
Conjugate	Unconjugated
Form	Liquid
Concentration	0.5 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	0.09% sodium azide
Storage conditions	4° C
RRID	AB_2865119

Applications	Tested Dilution	Publications
Western Blot (WB)	-	2 Publications
Immunohistochemistry (IHC)	-	145 Publications
Immunohistochemistry (Paraffin) (IHC (P))	2.5-5 µg/mL	14 Publications
Immunohistochemistry (PFA fixed) (IHC (PFA))	-	5 Publications
Immunohistochemistry (Frozen) (IHC (F))	5 µg/mL	11 Publications
Immunocytochemistry (ICC/IF)	1:100	67 Publications
Flow Cytometry (Flow)	-	87 Publications
Functional Assay (FN)	-	1 Publication

## Product Specific Information

**Description:** The monoclonal antibody SolA15 recognizes mouse and rat Ki-67, a 300 kDa nuclear protein. Ki-67 is present during all active phases of the cell cycle (G1, S, G2, and mitosis), but is absent from resting cells (G0). Ki-67 is detected within the nucleus during interphase but redistributes to the chromosomes during mitosis. Ki-67 is used as a marker for determining the growth fraction of a given population of cells. In studies of tumor cells, the "Ki-67 labeling index" refers to the number of Ki-67 positive cells within the population and this is used to predict outcome of particular cancer types. Ki-67 has been shown to interact with the DNA-bound protein chromobox protein homolog 3 (CBX3) (heterochromatin).

The SolA15 antibody also recognizes human, non-human primate and canine Ki-67.

**Applications Reported:** This SolA15 antibody has been reported for use in immunohistochemical staining of formalin-fixed paraffin embedded (FFPE) tissue sections and frozen (paraformaldehyde fixed) sections and immunocytochemistry (ICC).

**Applications Tested:** This SolA15 antibody has been tested by immunohistochemistry on formalin-fixed paraffin embedded mouse skin with high or low pH antigen retrieval and immunocytochemistry on fixed and permeabilized C2C12 cells at less than or equal to 5 µg/mL. It is recommended that this antibody be carefully titrated for optimal performance in the assay of

interest.

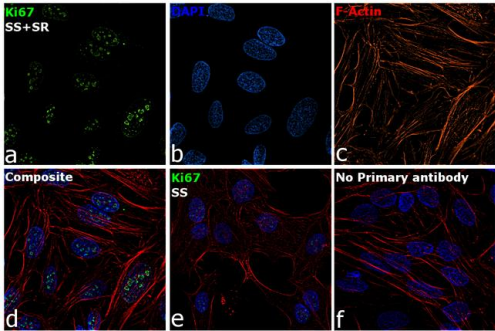
Purity: Greater than 90%, as determined by SDS-PAGE.

Aggregation: Less than 10%, as determined by HPLC.

Filtration: 0.2 µm post-manufacturing filtered.

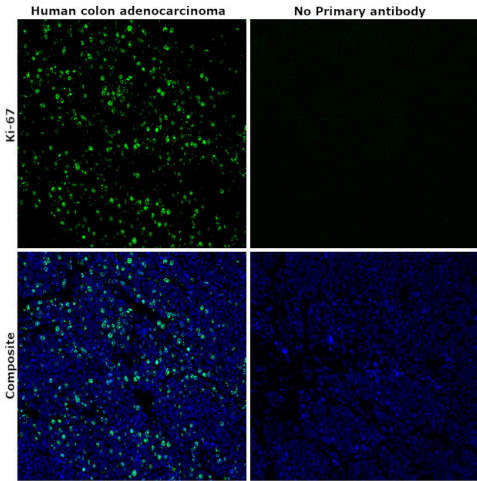
**Ki-67 Antibody (14-5698-37)**

Immunofluorescence analysis of Ki67 was performed using 70% confluent log phase HeLa cells serum starved for 36 Hrs followed by serum release for 6 Hrs. The cells were fixed with 4% Paraformaldehyde for 10 minutes, permeabilized with 0.1% Triton™ X-100 for 10 minutes, and blocked with 2% BSA for 10 minutes at room temperature. The cells were labeled with Ki-67 Monoclonal Antibody (SolA15), eBioscience™ (Product # 14-5698-82) at 5 µg/mL in 0.1% BSA, incubated at 4 degree celsius overnight and then labeled with Goat anti-Mouse IgG (H+L) Superclonal™ Recombinant Secondary Antibody, Alexa Fluor® 488 conjugate (Product # A28175), (1:2,000 dilution) 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 Cytoplasmic localization. Panel e represents HeLa cells serum starved for 36 Hrs with reduced signal. Panel f represents control cells with no primary antibody to assess background. The images were captured at 60X magnification. {TM}



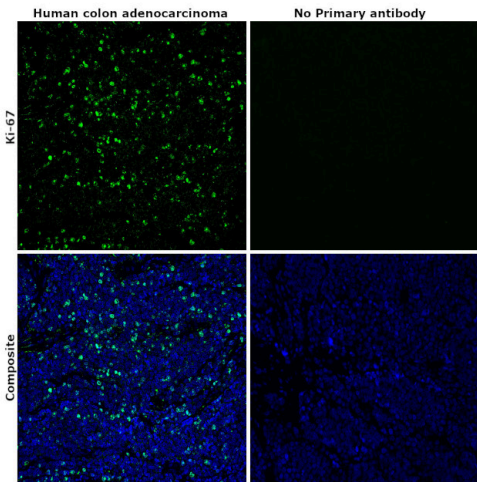
**Ki-67 Antibody (14-5698-37) in IHC (P)**

Immunohistochemical analysis of Ki-67 was performed using formalin-fixed paraffin-embedded human colon adenocarcinoma tissue sections. To expose the target protein, heat-induced epitope retrieval was performed on de-paraffinized sections using eBioscience™ IHC Antigen Retrieval Solution - Low pH (10X) (Product # 00-4955-58) diluted to 1X solution in water in a decloaking chamber at 110 degree Celsius for 15 minutes. Following antigen retrieval, the sections were blocked with 2% normal goat serum in 1X PBS for 45 minutes at room temperature and then probed with or without Ki-67 Monoclonal Antibody (SolA15), eBioscience™ (Product # 14-5698-82) at 5 µg/mL concentration in 0.1% normal goat serum overnight at 4 degree Celsius in a humidified chamber. Detection was performed using Goat anti-Rat IgG (H+L) Cross-Adsorbed Secondary Antibody, Alexa Fluor™ 488 (Product # A-11006) at a dilution of 1: 2000 in 0.1% normal goat serum for 45 minutes at room temperature. ReadyProbes™ Tissue Autofluorescence Quenching Kit (Product # R37630) was used to quench autofluorescence from the tissues. Nuclei were stained with DAPI (Product # D1306) and the sections were mounted using ProLong™ Glass Antifade Mountant (Product # P36984). The images were captured on EVOS™ M7000 Imaging System (Product # AMF7000) at 20X magnification and externally deconvoluted.



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332 References

Western Blot (2)

Advances in clinical and experimental medicine : official organ  
Wroclaw Medical University

**MYBL2 in synergy with CDC20 promotes the proliferation and inhibits apoptosis of gastric cancer cells.**

"14-5698-82 was used in Western Blot to examine the role of myeloblastosis viral oncogene homolog-like 2 (MYBL2) in gastric cancer progression and investigate the underlying mechanisms."

Authors: Deng Q,Wu L,Li Y,Zou L

Year

2021

Species

Human

Dilution

1:1000

eLife

**The cell proliferation antigen Ki-67 organises heterochromatin.**

"Published figure using Ki-67 monoclonal antibody (Product # 14-5698-82) in Flow Cytometry"

Authors: Sobacki M,Mrouj K,Camasses A,Parisis N,Nicolas E,Llères D,Gerbe F,Prieto S,Krasinska L,David A,Eguren M, Birling MC,Urbach S,Hem S,Déjardin J,Malumbres M,Jay P,Dulic V,Lafontaine DLj,Feil R,Fisher D

Year

2016

Species

Human  
Mouse

Immunohistochemistry (145)

Frontiers in physiology

**Genetic Deletion of P2Y<sub>2</sub> Receptor Offers Long-Term (5 Months) Protection Against Lithium-Induced Polyuria, Natriuresis, Kaliuresis, and Collecting Duct Remodeling and Cell Proliferation.**

"Published figure using Ki-67 monoclonal antibody (Product # 14-5698-82) in Immunofluorescence"

Authors: Zhang Y,Riquier-Brison A,Liu T,Huang Y,Carlson NG,Peti-Peterdi J,Kishore BK

Year

2023

Species

Mouse

Dilution

1:200

IBRO neuroscience reports

**Voluntary running exercise modifies astrocytic population and features in the peri-infarct cortex.**

"14-5698-82 was used in Immunohistochemistry to suggest that exercise modifies the composition of astrocytic population and their phenotype."

Authors: Yamaguchi N,Sawano T,Nakatani J,Nakano-Doi A,Nakagomi T,Matsuyama T,Tanaka H

Year

2023

Species

Mouse

Dilution

1:500

View more IHC references on thermofisher.com

More applications with references on thermofisher.com

- IHC (P) (14)
- IHC (PFA) (5)
- IHC (F) (11)
- ICC/IF (67)
- Flow (87)
- FN (1)

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