

Ki-67 Monoclonal Antibody (20Raj1), eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Dog, Human
Published Species	Artificial Control, Human, Mouse
Host/Isotype	Mouse / IgG1, kappa
Class	Monoclonal
Type	Antibody
Clone	20Raj1
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_2016711

Applications	Tested Dilution	Publications
Immunocytochemistry (ICC)	0.5-1 µg/mL	2 Publications
Immunofluorescence (IF)	0.5-1 µg/mL	3 Publications
Immunohistochemistry (Paraffin) (IHC (P))	0.5-1 µg/mL	-
Flow Cytometry (Flow)	-	7 Publications
Immunohistochemistry (IHC)	-	1 Publication
Western Blot (WB)	-	1 Publication

Product Specific Information

Description: The monoclonal antibody 20Raj1 recognizes the human Ki-67 protein. Two isoforms of Ki-67 exist, a 345 and 395 kDa form that are expressed in dividing cells. Ki-67 is expressed in all cell types and is detectable during active phases of the cell cycle (G1, S, G2, and mitosis) but is absent from resting cells (G0). During interphase, Ki-67 expression is localized to the nucleus but redistributes to the chromosomes during mitosis and has specifically been found to associate with heterochromatin-bound proteins such as chromobox protein homolog 3 (CBX3). In studies of tumor cells, Ki-67 expression has been used as a marker for determining the fraction of proliferating cells within a given population of tumor cells.

This monoclonal antibody 20Raj1 recognizes canine (dog) Ki-67.

Applications Reported: This 20Raj1 antibody has been reported for use in immunocytochemistry and immunohistochemistry on formalin-fixed paraffin embedded tissues.

Applications Tested: This 20Raj1 antibody has been tested by immunocytochemistry on paraformaldehyde fixed and permeabilized MCF7, MDCK, and MDA-MB-175 cell lines.

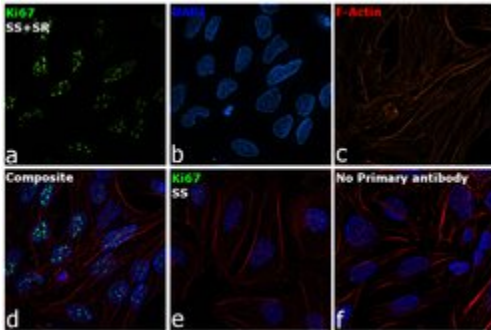
This 20Raj1 antibody has been tested by immunohistochemistry on FFPE human skin using citrate buffer antigen retrieval. For immunocytochemistry and immunohistochemistry, this can be used at less than or equal to 0.5-1 µg/mL. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

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

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

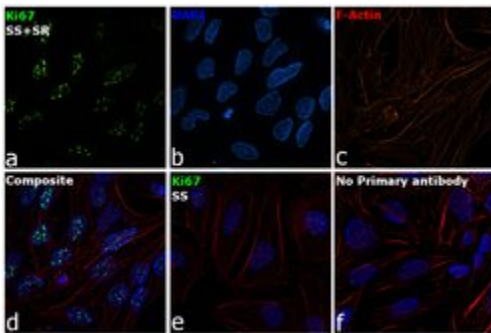
Filtration: 0.2 µm post-manufacturing filtered.

Advanced Verification Data



Ki-67 Antibody (14-5699-82)

Altered expression of target protein upon cell treatment demonstrates antibody specificity. Immunofluorescence analysis using Anti-Ki-67 Monoclonal Antibody (20Raj1), eBioscience™ (Product # 14-5699-80) shows increased expression of proteins upon serum starvation followed by serum release in HeLa cells. Cell treatment validation info.

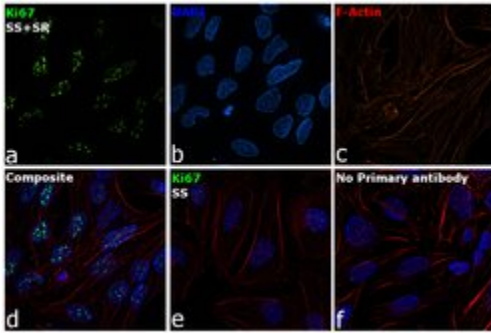


Ki-67 Antibody (14-5699-82)

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 (20Raj1), eBioscience™ (Product # 14-5699-82) at 1 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), (1:2000 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. Cell treatment validation info.

Ki-67 Antibody (14-5699-82) in IF

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 (20Raj1), eBioscience™ (Product # 14-5699-82) at 1 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, 1:2000 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 nuclear localization. Panel e represents 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.



[View more figures on thermofisher.com](http://thermofisher.com)

Western Blot (1)

Arteriosclerosis, thrombosis, and vascular biology

S100A6 Regulates Endothelial Cell Cycle Progression by Attenuating Antiproliferative Signal Transducers and Activators of Transcription 1 Signaling.

"Published figure using Ki-67 monoclonal antibody (Product # 14-5699-82) in Immunocytochemistry"

Authors: Lerchenmüller C, Heißenberg J, Damilano F, Bezzeridis VJ, Krämer I, Bochaton-Piallat ML, Hirschberg K, Busch M, Katus HA, Peppel K, Rosenzweig A, Busch H, Boerries M, Most P

Species
Not Applicable

Dilution
Not Cited

Year
2016

Immunohistochemistry (1)

Stem cells (Dayton, Ohio)

Biliary tree stem cells, precursors to pancreatic committed progenitors: evidence for possible life-long pancreatic organogenesis.

"Published figure using Ki-67 monoclonal antibody (Product # 14-5699-82) in Immunofluorescence"

Authors: Wang Y, Lanzoni G, Carpino G, Cui CB, Dominguez-Bendala J, Wauthier E, Cardinale V, Oikawa T, Pileggi A, Gerber D, Furth ME, Alvaro D, Gaudio E, Inverardi L, Reid LM

Species
Not Applicable

Dilution
Not Cited

Year
2013

Immunocytochemistry (2)

Arteriosclerosis, thrombosis, and vascular biology

S100A6 Regulates Endothelial Cell Cycle Progression by Attenuating Antiproliferative Signal Transducers and Activators of Transcription 1 Signaling.

"Published figure using Ki-67 monoclonal antibody (Product # 14-5699-82) in Immunocytochemistry"

Authors: Lerchenmüller C, Heißenberg J, Damilano F, Bezzeridis VJ, Krämer I, Bochaton-Piallat ML, Hirschberg K, Busch M, Katus HA, Peppel K, Rosenzweig A, Busch H, Boerries M, Most P

Species
Not Applicable

Dilution
Not Cited

Year
2016

Scientific reports

Core Transcription Factors, MicroRNAs, and Small Molecules Drive Transdifferentiation of Human Fibroblasts Towards The Cardiac Cell Lineage.

"14569982 was used in immunocytochemistry to describe the transdifferentiation of human dermal fibroblasts towards the cardiac cell lineage"

Authors: Christoforou N, Chakraborty S, Kirkton RD, Adler AF, Addis RC, Leong KW

Species
Human

Dilution
Not Cited

Year
2017

More applications with references on thermofisher.com

IF (3) Flow (7)

For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization. Products are warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Production documentation, specifications and/or accompanying package inserts ("Documentation"). No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the Buyer. Any model or sample furnished to Buyer is merely illustrative of the general type and quality of goods and does not represent that any Product will conform to such model or sample. NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE GRANTED INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR NON INFRINGEMENT. BUYER'S EXCLUSIVE REMEDY FOR NON-CONFORMING PRODUCTS DURING THE WARRANTY PERIOD IS LIMITED TO REPAIR, REPLACEMENT OF OR REFUND FOR THE NON-CONFORMING PRODUCT(S) AT SELLER'S SOLE OPTION. THERE IS NO OBLIGATION TO REPAIR, REPLACE OR REFUND FOR PRODUCTS AS THE RESULT OF (I) ACCIDENT, DISASTER OR EVENT OF FORCE MAJEURE, (II) MISUSE, FAULT OR NEGLIGENCE OF OR BY BUYER, (III) USE OF THE PRODUCTS IN A MANNER FOR WHICH THEY WERE NOT DESIGNED, OR (IV) IMPROPER STORAGE AND HANDLING OF THE PRODUCTS. Unless otherwise expressly stated on the Product or in the documentation accompanying the Product, the Product is intended for research only and is not to be used for any other purpose, including without limitation, unauthorized commercial uses, in vitro diagnostic uses, ex vivo or in vivo therapeutic uses, or any type of consumption by or application to human or animals.