## **Product Datasheet**

# **Ki-67/MKI67 Antibody NB110-90592**

Unit Size: 0.1 ml

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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## NB110-90592

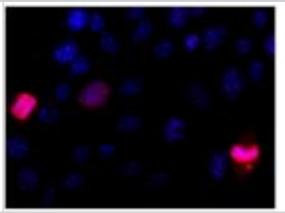
Ki-67/MKI67 Antibody

Product Information	KI-67/MKI07 Altibody	
Concentration 1 mg/ml Storage Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.  Clonality Polyclonal Preservative 0.02% Sodium Azide Isotype IgG Purity Immunogen affinity purified Buffer PBS  Product Description Host Rabbit Gene ID 4288 Gene Symbol MKI67 Species Human, Mouse Reactivity Notes Human and Mouse.  Marker Proliferation Marker Immunogen Synthetic peptide made to an internal portion of the human Ki67 protein (within residues 1200-1300). [Swiss-Prot# P46013]  Product Application Details  Applications Chromatin Immunoprecipitation, Immunocytochemistry/Immunofluorescence, Immunohistochemistry-Paraffin Recommended Dilutions Chromatin Immunoprecipitation, Immunohistochemistry 1:3200, Immunocytochemistry/Paraffin 1:3200, Immunohistochemistry-Paraffin embedded sections, Immunopfluorescence 1:50-1:200, Immunohistochemistry-Paraffin embedded sections, Immunocytochemistry-paraffin embedded sections, Immunocytochemistry/immunofluorescence. Use in	Product Information	
Storage Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.  Clonality Polyclonal Preservative 0.02% Sodium Azide Isotype IgG Purity Immunogen affinity purified  Buffer PBS  Product Description Host Rabbit Gene ID 4288 Gene Symbol MKI67 Species Human, Mouse Reactivity Notes Human and Mouse.  Marker Proliferation Marker Immunogen Synthetic peptide made to an internal portion of the human Ki67 protein (within residues 1200-1300). [Swiss-Prot# P46013]  Product Application Details  Applications Chromatin Immunoprecipitation, Immunocytochemistry/Immunofiluorescence, Immunohistochemistry-Paraffin Recommended Dilutions Chromatin Immunoprecipitation, Immunohistochemistry 1:3200, Immunocytochemistry/Immunohistochemistry-Paraffin 1:3200, Immunohistochemistry-Frozen  Application Notes This Ki67 antibody is useful for Immunohistochemistry-paraffin embedded sections, Immunocytochemistry/immunofiluorescence. Use in	Unit Size	0.1 ml
cycles.  Clonality Polyclonal Preservative 0.02% Sodium Azide Isotype IgG Purity Immunogen affinity purified Buffer PBS  Product Description Host Rabbit Gene ID 4288 Gene Symbol MKI67 Species Human, Mouse Reactivity Notes Human and Mouse. Marker Proliferation Marker Immunogen Synthetic peptide made to an internal portion of the human Ki67 protein (within residues 1200-1300). [Swiss-Prot# P46013]  Product Application Details  Applications Chromatin Immunoprecipitation, Immunocytochemistry/Immunofluorescence, Immunohistochemistry-Paraffin Recommended Dilutions Chromatin Immunoprecipitation, Immunohistochemistry 1:3200, Immunocytochemistry-Paraffin 1:3200, Immunohistochemistry-Paraffin embedded sections, Immunohistochemistry-paraffin embedded sections, Immunocytochemistry-paraffin embedded sections, Immunopituorescence. Use in	Concentration	1 mg/ml
Preservative 0.02% Sodium Azide Isotype IgG Purity Immunogen affinity purified Buffer PBS  Product Description Host Rabbit Gene ID 4288 Gene Symbol MKI67 Species Human, Mouse Reactivity Notes Human and Mouse. Marker Proliferation Marker Immunogen Synthetic peptide made to an internal portion of the human Ki67 protein (within residues 1200-1300). [Swiss-Prot# P46013]  Product Application Details Applications Chromatin Immunoprecipitation, Immunocytochemistry/Immunofluorescence, Immunohistochemistry-Paraffin Recommended Dilutions Chromatin Immunoprecipitation, Immunohistochemistry 1:3200, Immunocytochemistry/Paraffin 1:3200, Immunohistochemistry-Paraffin 1:3200, Immunohistochemistry-Paraffin 1:3200, Immunohistochemistry-Paraffin embedded sections, Immunohistochemistry-paraffin embedded	Storage	
Isotype	Clonality	Polyclonal
Purity Immunogen affinity purified  Buffer PBS  Product Description  Host Rabbit  Gene ID 4288  Gene Symbol MKI67  Species Human, Mouse  Reactivity Notes Human and Mouse.  Marker Proliferation Marker  Immunogen Synthetic peptide made to an internal portion of the human Ki67 protein (within residues 1200-1300). [Swiss-Prot# P46013]  Product Application Details  Applications Chromatin Immunoprecipitation, Immunocytochemistry/Immunofluorescence, Immunohistochemistry-Paraffin  Recommended Dilutions Chromatin Immunoprecipitation, Immunohistochemistry 1:3200, Immunocytochemistry/Immunofluorescence 1:50-1:200, Immunohistochemistry-Paraffin 1:3200, Immunohistochemistry-Frozen  Application Notes This Ki67 antibody is useful for Immunohistochemistry-paraffin embedded sections, Immunocytochemistry/immunofluorescence. Use in	Preservative	0.02% Sodium Azide
Product Description  Host Rabbit  Gene ID 4288  Gene Symbol MKI67  Species Human, Mouse  Reactivity Notes Human and Mouse.  Marker Proliferation Marker  Immunogen Synthetic peptide made to an internal portion of the human Ki67 protein (within residues 1200-1300). [Swiss-Prot# P46013]  Product Application Details  Applications Chromatin Immunoprecipitation, Immunocytochemistry/Immunohistochemistry-Paraffin  Recommended Dilutions Chromatin Immunoprecipitation, Immunohistochemistry 1:3200, Immunocytochemistry/Paraffin 1:3200, Immunocytochemistry-Frozen  Application Notes This Ki67 antibody is useful for Immunohistochemistry-paraffin embedded sections, Immunocytochemistry/immunofluorescence. Use in	Isotype	IgG
Product Description  Host Rabbit  Gene ID 4288  Gene Symbol MKI67  Species Human, Mouse  Reactivity Notes Human and Mouse.  Marker Proliferation Marker  Immunogen Synthetic peptide made to an internal portion of the human Ki67 protein (within residues 1200-1300). [Swiss-Prot# P46013]  Product Application Details  Applications Chromatin Immunoprecipitation, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin  Recommended Dilutions Chromatin Immunoprecipitation, Immunohistochemistry 1:3200, Immunocytochemistry/Paraffin 1:3200, Immunohistochemistry-Paraffin embedded sections, Immunohistochemistry-paraffin embedded sections, Immunohistochemistry-paraffin embedded sections, Immunoprecipitation, Immunohistochemistry-paraffin embedded sections, Immunocytochemistry/immunofluorescence. Use in	Purity	Immunogen affinity purified
Host Rabbit  Gene ID 4288  Gene Symbol MKI67  Species Human, Mouse  Reactivity Notes Human and Mouse.  Marker Proliferation Marker  Immunogen Synthetic peptide made to an internal portion of the human Ki67 protein (within residues 1200-1300). [Swiss-Prot# P46013]  Product Application Details  Applications Chromatin Immunoprecipitation, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin  Recommended Dilutions Chromatin Immunoprecipitation, Immunohistochemistry 1:3200, Immunocytochemistry/Immunofluorescence 1:50-1:200, Immunohistochemistry-Paraffin 1:3200, Immunohistochemistry-Frozen  Application Notes This Ki67 antibody is useful for Immunohistochemistry-paraffin embedded sections, Immunocytochemistry/immunofluorescence.Use in	Buffer	PBS
Gene Symbol  Gene Symbol  MKI67  Species  Human, Mouse  Reactivity Notes  Human and Mouse.  Marker  Proliferation Marker  Immunogen  Synthetic peptide made to an internal portion of the human Ki67 protein (within residues 1200-1300). [Swiss-Prot# P46013]  Product Application Details  Applications  Chromatin Immunoprecipitation, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin  Recommended Dilutions  Chromatin Immunoprecipitation, Immunohistochemistry 1:3200, Immunocytochemistry/Immunofluorescence 1:50-1:200, Immunohistochemistry-Paraffin 1:3200, Immunohistochemistry-Frozen  Application Notes  This Ki67 antibody is useful for Immunohistochemistry-paraffin embedded sections, Immunocytochemistry/immunofluorescence.Use in	Product Description	
Gene Symbol  MKI67  Species  Human, Mouse  Reactivity Notes  Human and Mouse.  Marker  Proliferation Marker  Immunogen  Synthetic peptide made to an internal portion of the human Ki67 protein (within residues 1200-1300). [Swiss-Prot# P46013]  Product Application Details  Applications  Chromatin Immunoprecipitation, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin  Recommended Dilutions  Chromatin Immunoprecipitation, Immunohistochemistry 1:3200, Immunocytochemistry/Immunofluorescence 1:50-1:200, Immunohistochemistry-Paraffin 1:3200, Immunohistochemistry-Frozen  Application Notes  This Ki67 antibody is useful for Immunohistochemistry-paraffin embedded sections, Immunocytochemistry/immunofluorescence.Use in	Host	Rabbit
Species	Gene ID	4288
Reactivity Notes Human and Mouse.  Marker Proliferation Marker  Immunogen Synthetic peptide made to an internal portion of the human Ki67 protein (within residues 1200-1300). [Swiss-Prot# P46013]  Product Application Details  Applications Chromatin Immunoprecipitation, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin  Recommended Dilutions Chromatin Immunoprecipitation, Immunohistochemistry 1:3200, Immunocytochemistry/Immunofluorescence 1:50-1:200, Immunohistochemistry-Paraffin 1:3200, Immunohistochemistry-Frozen  Application Notes This Ki67 antibody is useful for Immunohistochemistry-paraffin embedded sections, Immunocytochemistry/immunofluorescence.Use in	Gene Symbol	MKI67
Marker	Species	Human, Mouse
Synthetic peptide made to an internal portion of the human Ki67 protein (within residues 1200-1300). [Swiss-Prot# P46013]    Product Application Details	Reactivity Notes	Human and Mouse.
Product Application Details  Applications  Chromatin Immunoprecipitation, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin  Chromatin Immunoprecipitation, Immunohistochemistry 1:3200, Immunocytochemistry/Immunofluorescence 1:50-1:200, Immunohistochemistry-Paraffin 1:3200, Immunohistochemistry-Frozen  Application Notes  This Ki67 antibody is useful for Immunohistochemistry-paraffin embedded sections, Immunocytochemistry/immunofluorescence.Use in	Marker	Proliferation Marker
Applications  Chromatin Immunoprecipitation, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin  Chromatin Immunoprecipitation, Immunohistochemistry 1:3200, Immunocytochemistry/Immunofluorescence 1:50-1:200, Immunohistochemistry-Paraffin 1:3200, Immunohistochemistry-Frozen  Application Notes  This Ki67 antibody is useful for Immunohistochemistry-paraffin embedded sections, Immunocytochemistry/immunofluorescence.Use in	Immunogen	
Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin  Recommended Dilutions  Chromatin Immunoprecipitation, Immunohistochemistry 1:3200, Immunocytochemistry/Immunofluorescence 1:50-1:200, Immunohistochemistry-Paraffin 1:3200, Immunohistochemistry-Frozen  Application Notes  This Ki67 antibody is useful for Immunohistochemistry-paraffin embedded sections, Immunocytochemistry/immunofluorescence.Use in	Product Application Details	
Immunocytochemistry/Immunofluorescence 1:50-1:200, Immunohistochemistry-Paraffin 1:3200, Immunohistochemistry-Frozen  Application Notes  This Ki67 antibody is useful for Immunohistochemistry-paraffin embedded sections, Immunocytochemistry/immunofluorescence.Use in	Applications	Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-
sections, Immunocytochemistry/immunofluorescence. Use in	Recommended Dilutions	Immunocytochemistry/Immunofluorescence 1:50-1:200, Immunohistochemistry-
	Application Notes	sections, Immunocytochemistry/immunofluorescence. Use in

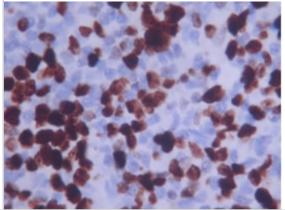


#### **Images**

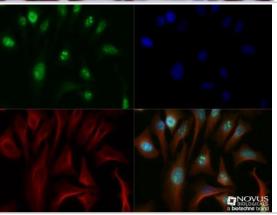
Immunocytochemistry/Immunofluorescence: Ki67 Antibody [NB110-90592] - IF analysis of Ki67 in mouse small intestinal epithelial cell line. Image courtesy of anonymous customer product review.



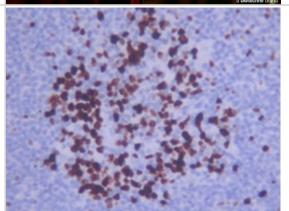
Immunohistochemistry: Ki67 Antibody [NB110-90592] - Detection of human lymph node using NB110-90592. (40X)



Chromatin Immunoprecipitation: Ki-67/MKI67 Antibody [NB110-90592] - HeLa cells were fixed for 10 minutes using 10% formalin and then permeabilized for 5 minutes using 1X TBS + 0.5% Triton-X100. The cells were incubated with anti-Ki-67/MKI67 (NB110-90592) at a 1:200 dilution overnight at 4C and detected with an anti-rabbit Dylight 488 (Green) at a 1:500 dilution. Alpha tubulin was used as a co-stain at a 1:1000 dilution and detected with an anti-mouse Dylight 550 (Red) at a 1:500 dilution. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 40X objective.



Immunohistochemistry: Ki67 Antibody [NB110-90592] - Detection of human lymph node using NB110-90592. (20X)



#### **Publications**

Kato T, Lee D, Huang H et al. Personalized siRNA-nanoparticle Systemic Therapy using Metastatic Lymph Node Specimens Obtained with EBUS-TBNA in Lung Cancer. Mol. Cancer Res. 2017 Oct 09 [PMID: 28993508] (Human)

Ernsting MJ, Hoang B, Lohse I et al. Targeting of metastasis-promoting tumor-associated fibroblasts and modulation of pancreatic tumor-associated stroma with a carboxymethylcellulose-docetaxel nanoparticle. J Control Release. 2015 Mar 21 [PMID: 25804872] (IHC, Mouse)

Tan Q, Joshua AM, Saggar JK et al. Effect of pantoprazole to enhance activity of docetaxel against human tumour xenografts by inhibiting autophagy Br. J. Cancer. 2015 Mar 03 [PMID: 25647012] (IHC-Fr, Human)

#### Details:

Ki-67/MKl67 antibody used for IHC-Fr on PC3 xenograft cryosections obtained from mice that were subjected or not to 24 hours of treatments with pantoprazole/PTP, docetaxel/DOC or PTP+DOC (docetaxel-treatment after pretreatment with pantoprazole). Ki67 was used as a marker of cell proliferation and the latter was found to be reduced in antimals treated with a combination of pantoprazole and docetaxel compared to the ones treated with either drugs alone (Figure 2D).

Cassol CA, Winer D, Liu W et al. Tyrosine kinase receptors as molecular targets in pheochromocytomas and paragangliomas. Mod. Pathol. 2014 Jan 03 [PMID: 24390213] (IHC-P, Human)

#### Details:

Ki67 antibody used for IHC-P on tissue microarray slides constructed from human pheochromocytomas and paragangliomas (including metastatic tissues).

Zhao JJ, Lin J, Zhu D et al. miR-30-5p Functions as a Tumor Suppressor and Novel Therapeutic Tool by Targeting the Oncogenic Wnt/betta-Catenin/BCL9 Pathway. Cancer Res. 3/15/2014 [PMID: 24599134] (IHC-P, Human)

Ciucurel E, Sefton MV. Using Del-1 to Tip the Angiogenic Balance in Endothelial Cells in Modular Constructs. Tissue Eng Part A. 2013 Oct 20 [PMID: 24138448] (IHC-P, Human)

Serra S, Zheng L, Hassan M et al. The FGFR4-G388R Single-Nucleotide Polymorphism Alters Pancreatic Neuroendocrine Tumor Progression and Response to mTOR Inhibition Therapy Cancer Res 2012 Nov 15 [PMID: 22986737] (IHC, Mouse)

Wei W, Liu W, Cassol C et al. The Breast Cancer Susceptibility Gene FGFR2 Serves as a Scaffold for Regulation of NF-kB Signaling Mol Cell Biol 2012 Sep 17 [PMID: 22988296] (IHC, Mouse, Human)

Fung AS, Jonkman J, Tannock IF. Quantitative immunohistochemistry for evaluating the distribution of ki67 and other biomarkers in tumor sections and use of the method to study repopulation in xenografts after treatment with Paclitaxel. Neoplasia;14(4):324-34. 2012 Apr. [PMID: 22577347] (IHC, Mouse)



#### **Procedures**

#### Immunohistochemistry Protocol for Ki67 Antibody (NB110-90592)

Immunohistochemistry

- 1. Slice fresh tissues in 3um sections
- 2. Formaldehyde fixation 50C for 1 hour
- 3. Dehydrate under 80%, 90%, 90%, 95%, 95%, 100% and 100% ethanol successively under 50C for
- 1 hour of each concentration
- 4. Xylene I 40C for 1 hour
- 5. Xylene II 40C for 1 hour
- 6. Paraffin I embedding 65 C for 1 hour
- 7. Paraffin II embedding 65 C for 1 hour
- 8. Paraffin III embedding 65 C for 1 hour
- 9. Deparaffinize and rehydrate sections as standard
- 10. Antigen retrieval using 10mM sodium citrate microwave for 20 minutes
- 11. Wash and PBS wash as standard
- 12. Add 100ul primary antibody diluted to 1:3200 separately and incubate at 4C overnight
- 13. Wash in PBS buffer for 3 times 5 minutes
- 14. Remove excess PBS buffer and incubate sections with biotinylated secondary antibody, incubate for 30 minutes at 30C
- 15. Wash in PBS buffer for 3 times 5 minutes
- 16. Remove excess PBS buffer and incubate sections with ABC at 30C for 30 minutes
- 17. Wash in PBS buffer for 3 times 5 minutes
- 18. Develop with DAB
- 19. Rinse slides in gently running tap water for 10 minutes





### **Novus Biologicals USA**

8100 Southpark Way, A-8 Littleton, CO 80120

USA

Phone: 303.730.1950 Toll Free: 1.888.506.6887

Fax: 303.730.1966 novus@novusbio.com

# Novus Biologicals Europe

19 Barton Lane Abingdon Science Park Abingdon, OX14 3NB, United Kingdom

Phone: (44) (0) 1235 529449 Free Phone: 0800 37 34 15 Fax: (44) (0) 1235 533420 info@bio-techne.com

## **Novus Biologicals Canada**

461 North Service Road West, Unit B37

Oakville, ON L6M 2V5

Canada

Phone: 905.827.6400 Toll Free: 855.668.8722 Fax: 905.827.6402 canada@novusbio.com

#### **General Contact Information**

www.novusbio.com

Technical Support: technical@novusbio.com

Orders: orders@novusbio.com General: novus@novusbio.com

## **Products Related to NB110-90592**

HAF008 Goat anti-Rabbit IgG Secondary Antibody [HRP (Horseradish

Peroxidase)]

NB7156 Goat anti-Rabbit IgG (H+L) Secondary Antibody

NBP2-24891 Rabbit IgG Isotype Control
NB110-90592F Ki-67/MKI67 Antibody [FITC]

#### Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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