

NMI Antibody
Purified Mouse Monoclonal Antibody (Mab)
Catalog # AM8506b

Specification

NMI Antibody - Product Information

Application	IF, WB, FC,E
Primary Accession	Q13287
Reactivity	Human
Host	Mouse
Clonality	monoclonal
Isotype	IgG1,k
Calculated MW	35057

NMI Antibody - Additional Information

Gene ID 9111

Other Names

N-myc-interactor, Nmi, N-myc and STAT interactor, NMI

Target/Specificity

This NMI antibody is generated from a mouse immunized with a recombinant protein of human NMI.

Dilution

IF~~1:25

WB~~1:2000

FC~~1:25

Format

Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

NMI Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

NMI Antibody - Protein Information

Name NMI ([HGNC:7854](#))

Function Acts as a signaling pathway regulator involved in innate immune system response (PubMed:[26342464](#), PubMed:[29038465](#), PubMed:[29350881](#), PubMed:[9989503](#)). In response to interleukin 2/IL2 and interferon IFN-gamma/IFNG, interacts with signal transducer and activator of

transcription/STAT which activate the transcription of downstream genes involved in a multitude of signals for development and homeostasis (PubMed:[29377960](#), PubMed:[9989503](#)). Enhances the recruitment of CBP/p300 coactivators to STAT1 and STAT5, resulting in increased STAT1- and STAT5-dependent transcription (PubMed:[9989503](#)). In response to interferon IFN-alpha, associates in a complex with signaling pathway regulator IFI35 to regulate immune response; the complex formation prevents proteasome-mediated degradation of IFI35 (PubMed:[10779520](#), PubMed:[10950963](#)). In complex with IFI35, inhibits virus-triggered type I IFN-beta production when ubiquitinated by ubiquitin-protein ligase TRIM21 (PubMed:[26342464](#)). In complex with IFI35, negatively regulates nuclear factor NF-kappa-B signaling by inhibiting the nuclear translocation, activation and transcription of NF-kappa-B subunit p65/RELA, resulting in the inhibition of endothelial cell proliferation, migration and re-endothelialization of injured arteries (PubMed:[29350881](#)). Negatively regulates virus-triggered type I interferon/IFN production by inducing proteasome-dependent degradation of IRF7, a transcriptional regulator of type I IFN, thereby interfering with cellular antiviral responses (By similarity). Beside its role as an intracellular signaling pathway regulator, also functions extracellularly as damage-associated molecular patterns (DAMPs) to promote inflammation, when actively released by macrophage to the extracellular space during cell injury or pathogen invasion (PubMed:[29038465](#)). Macrophage-secreted NMI activates NF-kappa-B signaling in adjacent macrophages through Toll-like receptor 4/TLR4 binding and activation, thereby inducing NF-kappa-B translocation from the cytoplasm into the nucleus which promotes the release of pro-inflammatory cytokines (PubMed:[29038465](#)).

Cellular Location

Cytoplasm. Nucleus. Secreted Note=Cytoplasmic NMI localizes in punctate granular structures (PubMed:[10950963](#), PubMed:[9781816](#)). Nuclear localization increased following IFN-alpha treatment (PubMed:[10950963](#), PubMed:[9781816](#)) Extracellular following secretion by macrophage (PubMed:[29038465](#))

Tissue Location

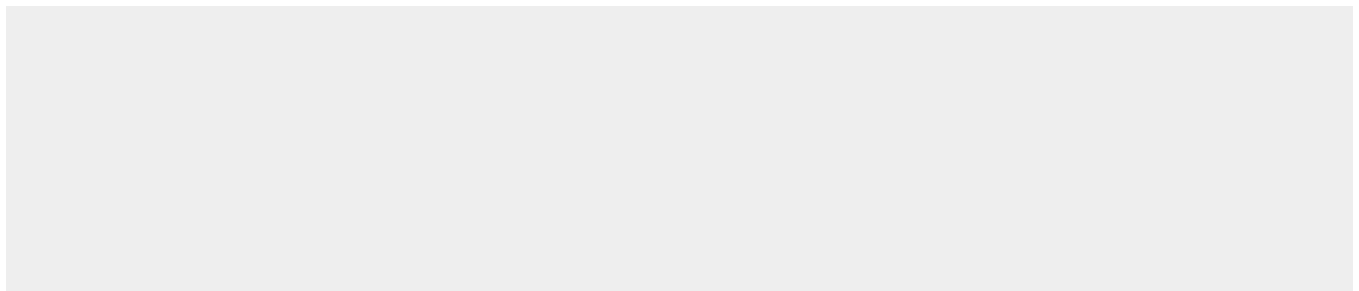
Expressed in adult spleen, liver, and kidney (PubMed:[9781816](#)). Expressed in fetal thymus, liver, placenta, spleen, lung, and kidney but not brain (PubMed:[9781816](#)). Expressed in macrophages (PubMed:[29038465](#)).

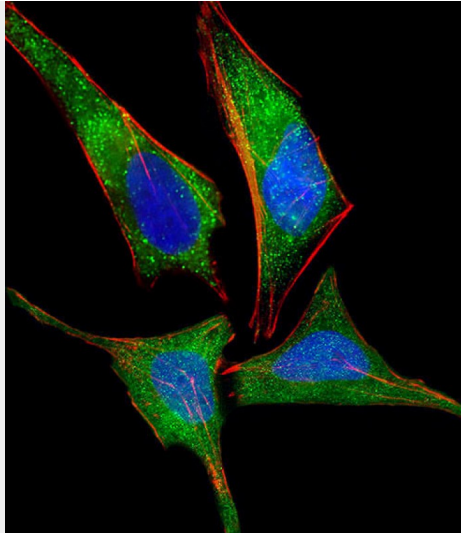
NMI Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

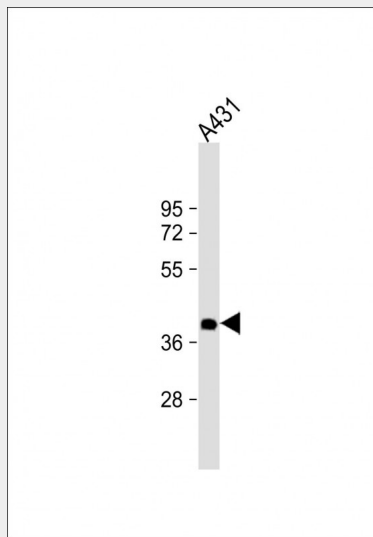
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

NMI Antibody - Images

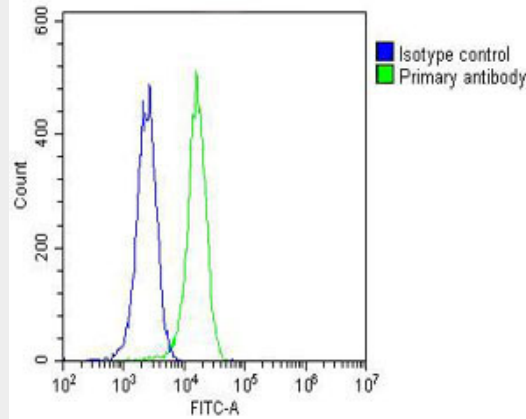




Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (human cervical epithelial adenocarcinoma cell line) cells labeling NMI with AM8506b at 1/25 dilution, followed by Dylight® 488-conjugated goat anti-mouse IgG (NA166821) secondary antibody at 1/200 dilution (green). Immunofluorescence image showing cytoplasm and nucleus staining on HeLa cell line. Cytoplasmic actin is detected with Dylight® 554 Phalloidin (PD18466410) at 1/100 dilution (red).The nuclear counter stain is DAPI (blue).



Anti-NMI Antibody at 1:2000 dilution + A431 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 35 kDa Blocking/Dilution buffer: 5% NFDm/TBST.



Overlay histogram showing K562 cells stained with AM8506b(green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then incubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AM8506b, 1:25 dilution) for 60 min at 37°C. The secondary antibody used was Goat-Anti-Mouse IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed(OJ192088) at 1/200 dilution for 40 min at 37°C. Isotype control antibody (blue line) was mouse IgG1 (1µg/1x10⁶ cells) used under the same conditions. Acquisition of >10,000 events was performed.

NMI Antibody - Background

May be involved in augmenting coactivator protein recruitment to a group of sequence-specific transcription factors. Augments cytokine-mediated STAT transcription. Enhances CBP/p300 coactivator protein recruitment to STAT1 and STAT5.

NMI Antibody - References

- Bao J., et al. *Oncogene* 12:2171-2176(1996).
- Goshima N., et al. *Nat. Methods* 5:1011-1017(2008).
- Hillier L.W., et al. *Nature* 434:724-731(2005).
- Mural R.J., et al. Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.
- Zhu M.-H., et al. *Cell* 96:121-130(1999).