

NMI Antibody (clone 9D8)

Mouse Monoclonal Antibody Catalog # ALS16350

Specification

NMI Antibody (clone 9D8) - Product Information

Application IHC, WB
Primary Accession Q13287
Reactivity Human
Host Mouse
Clonality Monoclonal
Calculated MW 35kDa KDa

NMI Antibody (clone 9D8) - Additional Information

Gene ID 9111

Other Names

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

Reconstitution & Storage

Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

Precautions

NMI Antibody (clone 9D8) is for research use only and not for use in diagnostic or therapeutic procedures.

NMI Antibody (clone 9D8) - Protein Information

Name NMI (HGNC:7854)

Function

Acts as a signaling pathway regulator involved in innate immune system response (PubMed:9989503, PubMed:26342464, PubMed:29038465, PubMed:29038465, PubMed:29350881). 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:9989503, PubMed:29377960). 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:<a



href="http://www.uniprot.org/citations/10950963" target="_blank">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 proteosome-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 proinflammatory cytokines (PubMed:29038465).

Cellular Location

Cytoplasm. Nucleus. Secreted Note=Cytoplasmic NMI localizes in punctate granular structures (PubMed:9781816, PubMed:10950963). Nuclear localization increased following IFN-alpha treatment (PubMed:9781816, PubMed:10950963) Extracelullar 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).

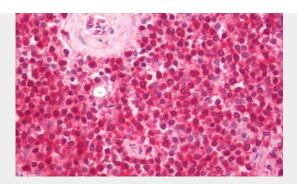
NMI Antibody (clone 9D8) - Protocols

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

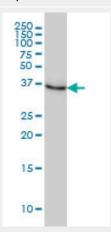
- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

NMI Antibody (clone 9D8) - Images

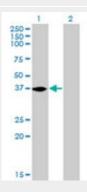




Anti-NMI antibody IHC staining of human spleen.



NMI monoclonal antibody (M01), clone 9D8 Western blot of NMI expression in HeLa.



Western blot of NMI expression in transfected 293T cell line by NMI monoclonal antibody (M01),...

NMI Antibody (clone 9D8) - 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 (clone 9D8) - 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).