

NMI Rabbit mAb

Catalog # AP78831

Product Information

Application WB, IHC-P, IF, ICC, IP

Primary Accession
Reactivity
Human
Rabbit

Clonality Monoclonal Antibody

Isotype IgG

Conjugate Unconjugated

Immunogen A synthesized peptide derived from human NMI

Purification Affinity Chromatography

Calculated MW 35057

Additional Information

Gene ID 9111

Other Names NMI

Dilution WB~~1/500-1/1000 IHC-P~~N/A IF~~1:50~200 ICC~~N/A IP~~N/A

Format Liquid in 10mM PBS, pH 7.4, 150mM sodium chloride, 0.05% BSA, 0.02%

sodium azide and 50% glycerol.

Storage Store at 4°C short term. Aliquot and store at -20°C long term. Avoid

freeze/thaw cycles.

Protein Information

Name NMI (HGNC:7854)

Function Acts as a signaling pathway regulator involved in innate immune system

response (PubMed:<u>26342464</u>, PubMed:<u>29038465</u>, PubMed:<u>29350881</u>, PubMed:<u>9989503</u>). 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:<u>29377960</u>, PubMed:<u>9989503</u>). 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 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).

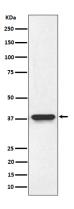
Cellular Location

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

Images



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