



MDA5 Rabbit mAb

Catalog No	YP-rAb-17385
Isotype	IgG
Reactivity	Human,Mouse,Rat
Applications	WB,IHC,IF,ELISA
Gene Name	IFIH1
Protein Name	Interferon-induced helicase C domain-containing protein 1
Purification Process	Protein A
Specificity	Endogenous
Formulation	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
Source	Monoclonal, Rabbit,IgG
Dilution	IHC 1:200-1:1000; WB 1:2000-1:10000; IF 1:200-1:1000; ELISA 1:5000-1:20000; Note: For IHC, we suggest antigen retrieval with TE buffer pH 9.0
Concentration	0.5 mg/ml
Purity	≥90%
Storage Stability	-15° C to -25° C/1 year(Do not lower than -25° C)
Synonyms	IFIH1 ; MDA5 ; RH116 ; Interferon-induced helicase C domain-containing protein 1 ; Clinically amyopathic dermatomyositis autoantigen 140 kDa ; CADM-140 autoantigen ; Helicase with 2 CARD domains ; Helicard ; Interferon-induced with helicase C domai
Observed Band	135kD
Calculated Molecular Weight	117kD
Cell Pathway	Cytoplasm . Nucleus . Mitochondrion . Upon viral RNA stimulation and ISGylation, translocates from cytosol to mitochondrion. May be found in the nucleus, during apoptosis.
Tissue Specificity	Widely expressed, at a low level. Expression is detected at slightly highest levels in placenta, pancreas and spleen and at barely levels in detectable brain, testis and lung.
Function	Disease:Genetic variation in IFIH1 is associated with insulin-dependent diabetes mellitus 19 (IDDM19) [MIM:610155].,Function:RNA helicase that, through its ATP-dependent unwinding of RNA, may function to promote message degradation by specific RNases. Seems to have growth suppressive properties. Involved in innate immune defense against viruses. Upon interaction with intracellular dsRNA produced during viral replication, triggers a transduction cascade involving MAVS/IPS1, which results in the activation of NF-kappa-B,





IRF3 and IRF7 and the induction of the expression of antiviral cytokines such as IFN-beta and RANTES (CCL5). ATPase activity is specifically induced by dsRNA. Essential for the production of interferons in response to picornaviruses. Induction: By IFN-beta and TNF-alpha. Miscellaneous: In HIV-1 infected HeLa-CD4 cells, overexpression of IFIH1 results in a great increase in the level of secreted viral p24 protein. PTM: During apoptosis, processed into 3 cleavage products. The helicase-containing fragment, once liberated from the CARD domains, translocate from the cytoplasm to the nucleus. The processed protein significantly sensitizes cells to DNA degradation. Sequence Caution: Contaminating sequence. Potential poly-A sequence. Similarity: Belongs to the helicase family. Similarity: Contains 1 helicase ATP-binding domain. Similarity: Contains 1 helicase C-terminal domain. Similarity: Contains 2 CARD domains. Subcellular location: May be found in the nucleus, during apoptosis. Subunit: Interacts with MAVS. Interacts with V protein of Simian virus 5, Human parainfluenza virus 2, Mumps virus, Sendai virus and Hendra virus. Binding to paramyxoviruses V proteins prevents IFN-beta induction, and the further establishment of an antiviral state. Tissue specificity: Widely expressed, at a low level. Expression is detected at slightly highest levels in placenta, pancreas and spleen and at barely levels in detectable brain, testis and lung.

Background

DEAD box proteins, characterized by the conserved motif Asp-Glu-Ala-Asp (DEAD), are putative RNA helicases. They are implicated in a number of cellular processes involving alteration of RNA secondary structure such as translation initiation, nuclear and mitochondrial splicing, and ribosome and spliceosome assembly. Based on their distribution patterns, some members of this family are believed to be involved in embryogenesis, spermatogenesis, and cellular growth and division. This gene encodes a DEAD box protein that is upregulated in response to treatment with beta-interferon and a protein kinase C-activating compound, mezerein. Irreversible reprogramming of melanomas can be achieved by treatment with both these agents; treatment with either agent alone only achieves reversible differentiation. Genetic variation in this gene is associated with diabetes mellitus insulin-depend

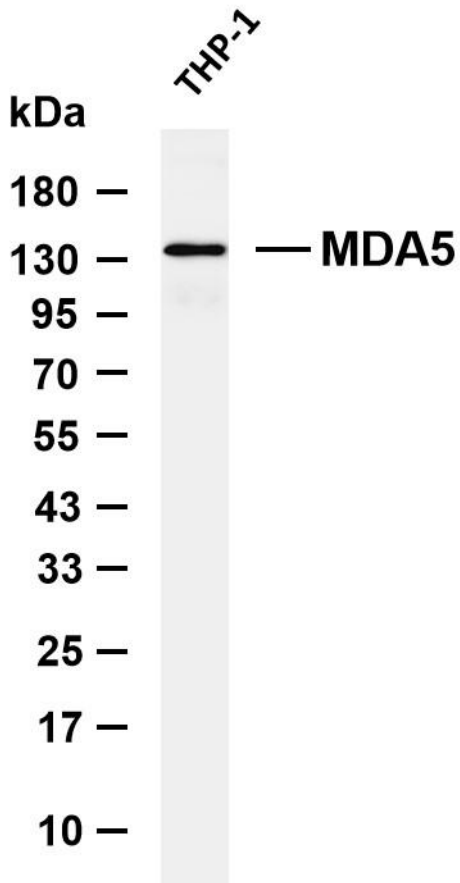
matters needing attention

Avoid repeated freezing and thawing!

Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.





Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-MDA5 antibody. The HRP-conjugated Goat anti-Rabbit IgG (H + L) antibody was used to detect the antibody. Lane 1: THP-1 Predicted band size: 117kDa Observed band size: 135kDa

