Product Name: MDA5 Rabbit Polyclonal Antibody
Catalog #: APRab13746

Summary

Production Name	MDA5 Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB,IHC,ELISA
Reactivity	Human,Mouse

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	IFIH1
Alternative Names	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
Gene ID	64135.0
SwissProt ID	Q9BYX4.The antiserum was produced against synthesized peptide derived from human IFIH1. AA range:976-1025

Application

Dilution Ratio	WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:40000..
Molecular Weight	120kD

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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-dependdisease: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.,

Research Area

RIG-I-like receptor;

Image Data

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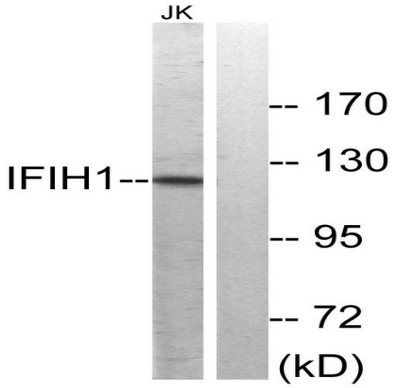
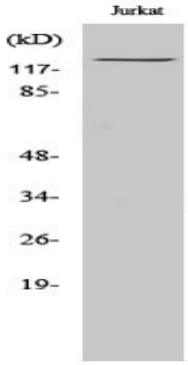
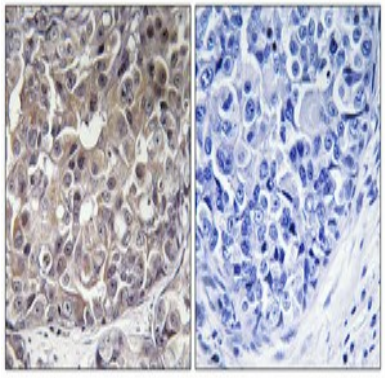


Western blot analysis of lysates from Jurkat cells, using IFIH1 Antibody. The lane on the right is blocked with the synthesized peptide.



Western Blot analysis of various cells using MDA5 Polyclonal Antibody



Immunohistochemical analysis of paraffin-embedded Human breast cancer. Antibody was diluted at 1:100（4°,overnight）. High-pressure and temperature Tris-EDTA,pH8.0 was used for antigen retrieval. Negetive contrl （right） obtaned from antibody was pre-absorbed by immunogen peptide.

Note

For research use only.