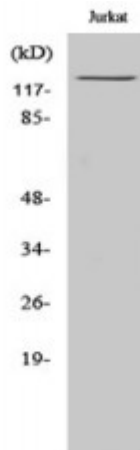


Anti-MDA5 antibody



Description	Rabbit polyclonal to MDA5.
Model	STJ94052
Host	Rabbit
Reactivity	Human, Mouse
Applications	ELISA, IHC, WB
Immunogen	Synthesized peptide derived from human MDA5
Immunogen Region	940-1020 aa, C-terminal
Gene ID	64135
Gene Symbol	IFIH1
Dilution range	WB 1:500-1:2000IHC 1:100-1:300ELISA 1:40000
Specificity	MDA5 Polyclonal Antibody detects endogenous levels of MDA5 protein.
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.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Note	For Research Use Only (RUO).
Protein Name	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 domain protein

Molecular Weight	120 kDa
Clonality	Polyclonal
Conjugation	Unconjugated
Isotype	IgG
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:18873OMIM:182250
Alternative Names	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 domain protein
Function	Innate immune receptor which acts as a cytoplasmic sensor of viral nucleic acids and plays a major role in sensing viral infection and in the activation of a cascade of antiviral responses including the induction of type I interferons and proinflammatory cytokines. Its ligands include mRNA lacking 2'-O-methylation at their 5' cap and long-dsRNA (>1 kb in length). Upon ligand binding it associates with mitochondria antiviral signaling protein (MAVS/IPS1) which activates the IKK-related kinases: TBK1 and IKKε which phosphorylate interferon regulatory factors: IRF3 and IRF7 which in turn activate transcription of antiviral immunological genes, including interferons (IFNs); IFN-α and IFN-β. Responsible for detecting the Picornaviridae family members such as encephalomyocarditis virus (EMCV) and mengo encephalomyocarditis virus (ENMG). Can also detect other viruses such as dengue virus (DENV), west Nile virus (WNV), and reovirus. Also involved in antiviral signaling in response to viruses containing a dsDNA genome, such as vaccinia virus. Plays an important role in amplifying innate immune signaling through recognition of RNA metabolites that are produced during virus infection by ribonuclease L (RNase L). May play an important role in enhancing natural killer cell function and may be involved in growth inhibition and apoptosis in several tumor cell lines.
Cellular Localization	Cytoplasm Nucleus. May be found in the nucleus, during apoptosis.
Post-translational Modifications	Sumoylated. Sumoylation positively regulates its role in type I interferon induction and is enhanced by PIAS2-β. Ubiquitinated by RNF125, leading to its degradation by the proteasome. USP17/UPS17L2-dependent deubiquitination positively regulates the receptor. 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.