ARG44677
anti-IFIH1 / MDA5 antibody

Package: 50 µg
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody recognizes IFIH1 / MDA5
Tested Reactivity	Hu
Tested Application	IHC-P, IP, WB
Host	Mouse
Clonality	Monoclonal
Isotype	IgG2a
Target Name	IFIH1 / MDA5
Species	Human
Conjugation	Un-conjugated
Alternate Names	Interferon-induced helicase C domain-containing protein 1; Murabutide down-regulated protein; SGMRT1; EC 3.6.4.13; RIG-I-like receptor 2; MDA5; Clinically amyopathic dermatomyositis autoantigen 140 kDa; AGS7; MDA-5; CADM-140 autoantigen; Melanoma differentiation-associated protein 5; IDDM19; Interferon-induced with helicase C domain protein 1; RNA helicase-DEAD box protein 116; Helicard; RLR-2; Hlcd; Helicase with 2 CARD domains

Application Instructions

Application table

Application	Dilution
IHC-P	5-10 µg/mL
IP	10 µg/mL
WB	1 µg/mL

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

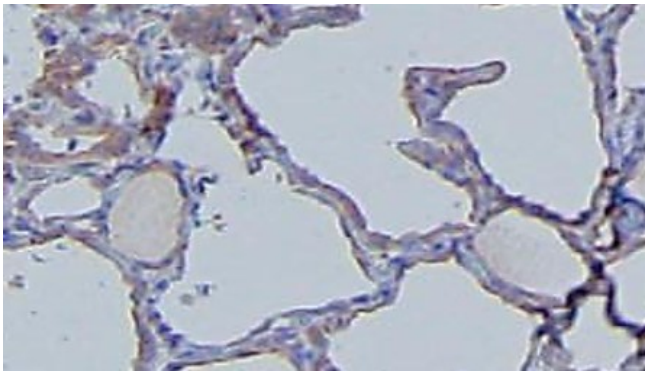
Properties

Form	Liquid
Purification	Protein A purification
Buffer	PBS with 0.09% sodium azide
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

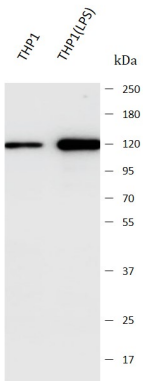
Gene Symbol	IFIH1
Gene Full Name	interferon induced with helicase C domain 1
Background	DEAD box proteins, characterized by the conserved motif Asp-Glu-Ala-Asp (DEAD), are putative RNA helicases. They are implicated in a number of cellular processes involving alteration of RNA secondary structure such 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-dependent type 19. [provided by RefSeq, Jul 2012]
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 IKBKE which phosphorylate interferon regulatory factors: IRF3 and IRF7 which in turn activate transcription of antiviral immunological genes, including interferons (IFNs); IFN-alpha and IFN-beta. 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. [UniProt]
Calculated Mw	117 kDa
PTM	N-glycosylation enhances cell surface expression and lengthens receptor half-life by preventing degradation in the ER.
Cellular Localization	Cytoplasm. Nucleus. Note=May be found in the nucleus, during apoptosis. [UniProt]

Images



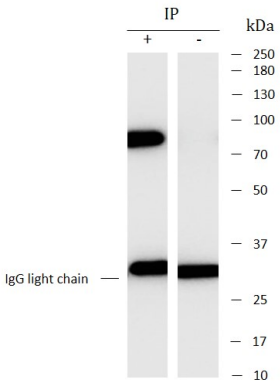
ARG44677 anti-IFIH1 / MDA5 antibody IHC-P image

Immunohistochemistry: Human Thyroid Gland stained with ARG44677 anti-IFIH1 / MDA5 antibody at 5 µg/mL dilution.



ARG44677 anti-IFIH1 / MDA5 antibody WB image

Western blot: THP1(WT) and THP1 (treated 15 µg LPS) stained with ARG44677 anti-IFIH1 / MDA5 antibody at 1 µg/mL dilution.



ARG44677 anti-IFIH1 / MDA5 antibody IP image

Immunoprecipitation: THP1 lysate immunoprecipitated with 2.5 µg of ARG44677 anti-IFIH1 / MDA5 antibody.