Product Name: KD-Validated IFIH1 Recombinant Rabbit Monoclonal Antibody
Catalog #: KVAb01766
For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,ICC
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; ICC 1:100-1:1,000
Molecular Weight	Calculated MW: 116.7kDa

Antigen Information

Gene Name	IFIH1
Alternative Names	IFIH1; Interferon Induced With Helicase C Domain 1; MDA-5; MDA5; Helicard; IDDM19; Interferon-Induced Helicase C Domain-Containing Protein 1; Clinically Amyopathic Dermatomyositis Autoantigen 140 KDa; Melanoma Differentiation-Associated Protein 5; Melanoma Differentiation-Associated Gene 5; RNA Helicase-DEAD Box Protein 116; Murabutide Down-Regulated Protein; Helicase With 2 CARD Domains; RIG-I-Like Receptor; CADM-140 Autoantigen; RLR-2; Hlcd; Interferon-Induced With Helicase C Domain Protein 1; DEAD/H (Asp-Glu-Ala-Asp/His) Box Polypeptide; EC 3.6.4.13; SGMRT1; IMD95; RH116; AGS7; HLCD
Gene ID	64135.0
SwissProt ID	Q9BYX4

Immunogen A synthesized peptide derived from human MDA5

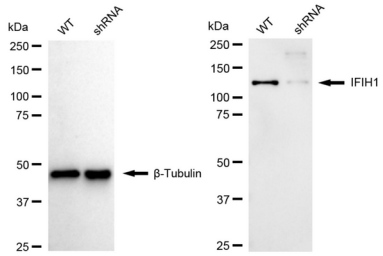
Background

IFIH1 encodes MDA5 which is an intracellular sensor of viral RNA that triggers the innate immune response. Sensing RNA length and secondary structure, MDA5 binds dsRNA oligonucleotides with a modified DExD/H-box helicase core and a C-terminal domain, thus leading to a proinflammatory response that includes interferons. It has been shown that Coronaviruses (CoVs) as well as various other virus families, are capable of evading the MDA5-dependent interferon response, thus impeding the activation of the innate immune response to infection. MDA5 has also been shown to play an important role in enhancing natural killer cell function in malaria infection. In addition to its protective role in antiviral responses, MDA5 has been implicated in autoimmune and autoinflammatory diseases such as type 1 diabetes, systemic lupus erythematosus, and Aicardi-Goutieres syndrome[provided by RefSeq, Jul 2020]

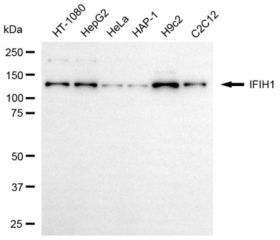
Research Area

Immunology,Microbiology,Epigenetics and Nuclear Signaling

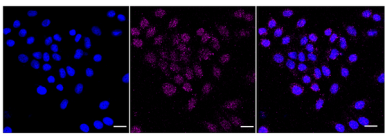
Image Data



Western blotting analysis using IFIH1 antibody (KVAb01766). IFIH1 expression in wild type (WT) and IFIH1 shRNA knockdown (KD) HT-1080 cells with 20 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with IFIH1 antibody (KVAb01766, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Western blotting analysis using IFIH1 antibody (KVAb01766). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with IFIH1 antibody (KVAb01766, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Immunocytochemical staining of HepG2 cells with IFIH1 antibody (KVAb01766, 1:1,000). Nuclei were stained blue with DAPI; IFIH1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.