

# Anti-MDA5 Antibody [PSH03-56]

## HA722015



<b>Product Type:</b>	Recombinant Rabbit monoclonal IgG, primary antibodies
<b>Species reactivity:</b>	Human, Mouse, Rat
<b>Applications:</b>	WB
<b>Molecular Wt:</b>	Predicted band size: 117 kDa
<b>Clone number:</b>	PSH03-56

**Description:** MDA5 (melanoma differentiation-associated protein 5) is a RIG-I-like receptor dsRNA helicase enzyme that is encoded by the IFIH1 gene in humans. MDA5 is part of the RIG-I-like receptor (RLR) family, which also includes RIG-I and LGP2, and functions as a pattern recognition receptor capable of detecting viruses. It is generally believed that MDA5 recognizes double stranded RNA (dsRNA) over 2000nts in length, however it has been shown that whilst MDA5 can detect and bind to cytoplasmic dsRNA, it is also activated by a high molecular weight RNA complex composed of ssRNA and dsRNA. For many viruses, effective MDA5-mediated antiviral responses are dependent on functionally active LGP2. The signaling cascades in MDA5 is initiated via CARD domain. Some observations made in cancer cells show that MDA5 also interacts with cellular RNA is able to induce an autoinflammatory response.

**Immunogen:** Recombinant protein within human MDA5 aa 250-1,025 / 1,025.

**Positive control:** THP-1 cell lysate, HepG2 cell lysate, Jurkat cell lysate, Daudi cell lysate, Raji cell lysate, MCF7 cell lysate, HeLa cell lysate, SH-SY5Y cell lysate, A549 cell lysate, A431 cell lysate, mouse pancreas tissue lysate, rat kidney tissue lysate.

**Subcellular location:** Cytoplasm, Nucleus, Mitochondrion.

**Database links:** SwissProt: Q9BYX4 Human | Q8R5F7 Mouse  
Entrez Gene: 499801 Rat

**Recommended Dilutions:**  
**WB** 1:2,000

**Storage Buffer:** PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.

**Purity:** Protein A affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

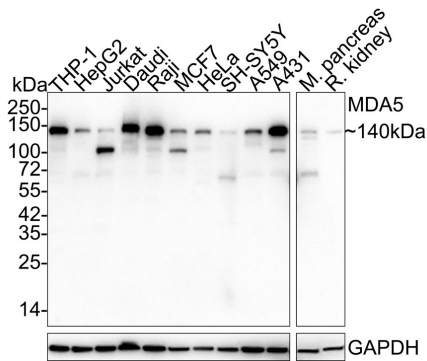
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## Images

**Fig1:** Western blot analysis of MDA5 on different lysates with Rabbit anti-MDA5 antibody (HA722015) at 1/2,000 dilution.



Lane 1: THP-1 cell lysate (20 µg/Lane)  
 Lane 2: HepG2 cell lysate (20 µg/Lane)  
 Lane 3: Jurkat cell lysate (20 µg/Lane)  
 Lane 4: Daudi cell lysate (20 µg/Lane)  
 Lane 5: Raji cell lysate (20 µg/Lane)  
 Lane 6: MCF7 cell lysate (20 µg/Lane)  
 Lane 7: HeLa cell lysate (20 µg/Lane)  
 Lane 8: SH-SY5Y cell lysate (20 µg/Lane)  
 Lane 9: A549 cell lysate (20 µg/Lane)  
 Lane 10: A431 cell lysate (20 µg/Lane)  
 Lane 11: Mouse pancreas tissue lysate (40 µg/Lane)  
 Lane 12: Rat kidney tissue lysate (40 µg/Lane)

Lysates/proteins at 10 µg/Lane.

Predicted band size: 117 kDa

Observed band size: 140/100 kDa

Exposure time: 3 minutes;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA722015) at 1/2,000 dilution was used in 5% NFDM/TBST at 4°C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

**Note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

### Background References

1. Nombel A et al. Dermatomyositis With Anti-MDA5 Antibodies: Bioclinical Features, Pathogenesis and Emerging Therapies. *Front Immunol.* 2021 Oct
2. Wu W et al. Interstitial Lung Disease in Anti-MDA5 Positive Dermatomyositis. *Clin Rev Allergy Immunol.* 2021 Apr

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