

Product datasheet

Anti-MDA5 antibody [EPR6743] ab126630

KO VALIDATED Recombinant RabMAB

★★★★★ 2 Abreviews 7 References 3 Images

Overview

Product name	Anti-MDA5 antibody [EPR6743]
Description	Rabbit monoclonal [EPR6743] to MDA5
Host species	Rabbit
Tested applications	Suitable for: WB Unsuitable for: Flow Cyt, IHC-P or IP
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	THP1 treated with LPS cell lysate.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAB[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAB[®] patents.</p> <p>Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	<p>pH: 7.20</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture supernatant</p>
Purity	Protein A purified
Clonality	Monoclonal

Clone number EPR6743
Isotype IgG

Applications

The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab126630 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★★ (2)	1/1000 - 1/10000. Predicted molecular weight: 117 kDa.

Application notes Is unsuitable for Flow Cyt, IHC-P or IP.

Target

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.

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.

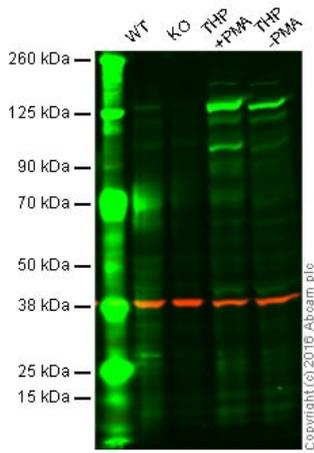
Involvement in disease Genetic variation in IFIH1 is associated with diabetes mellitus insulin-dependent type 19 (IDDM19) [MIM:610155]. A multifactorial disorder of glucose homeostasis that is characterized by susceptibility to ketoacidosis in the absence of insulin therapy. Clinical fetatures are polydipsia, polyphagia and polyuria which result from hyperglycemia-induced osmotic diuresis and secondary thirst. These derangements result in long-term complications that affect the eyes, kidneys, nerves, and blood vessels.
Note=IFIH1 is the CADM-140 autoantigen, involved in clinically amyopathic dermatomyositis (CADM). This is a chronic inflammatory disorder that shows typical skin manifestations of dermatomyositis but has no or little evidence of clinical myositis. Anti-CADM-140 antibodies appear to be specific to dermatomyositis, especially CADM. Patients with anti-CADM-140 antibodies frequently develop life-threatening acute progressive interstitial lung disease (ILD).

Sequence similarities Belongs to the helicase family.
Contains 2 CARD domains.
Contains 1 helicase ATP-binding domain.
Contains 1 helicase C-terminal domain.

Post-translational modifications 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.

Cellular localization Cytoplasm. Nucleus. May be found in the nucleus, during apoptosis.

Images



Western blot - Anti-MDA5 antibody [EPR6743] (ab126630)

Lane 1: Wild-type HAP1 cell lysate (20 µg)

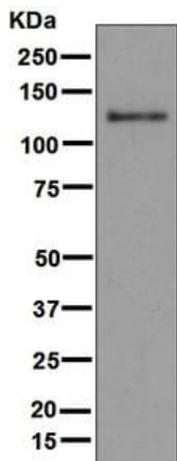
Lane 2: MDA5 knockout HAP1 cell lysate (20 µg)

Lane 3: THP cell lysate with 100 nM PAM for 6 h (20 µg)

Lane 4: THP cell lysate (20 µg)

Lanes 1 - 4: Merged signal (red and green). Green - ab126630 observed at 130 kDa. Red - loading control, ab8245, observed at 37 kDa.

ab126630 was shown to specifically react with MDA5 when MDA5 knockout samples were used. Wild-type and MDA5 knockout samples were subjected to SDS-PAGE. ab126630 and ab8245 (loading control to GAPDH) were diluted 1/1000 and 1/2000 respectively and incubated overnight at 4°C. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (ab216776) secondary antibodies at 1/10 000 dilution for 1 h at room temperature before imaging.



Western blot - Anti-MDA5 antibody [EPR6743] (ab126630)

Anti-MDA5 antibody [EPR6743] (ab126630) at 1/1000 dilution + THP1 treated with LPS cell lysate at 10 µg

Secondary

Goat anti-rabbit HRP conjugated antibody at 1/2000 dilution

Predicted band size: 117 kDa

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-MDA5 antibody [EPR6743] (ab126630)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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