

MDA5 (H-61): sc-134513

BACKGROUND

The gene that encodes MDA5 (interferon induced with helicase C domain protein 1, IFIH1, melanoma differentiation-associated gene 5) is induced during differentiation, cancer reversion and programmed cell death (apoptosis) and contains both a caspase recruitment domain and supposed DExH group RNA helicase domains. The irregular helicase motifs of MDA5 avert from consensus sequences but are well conserved in a potentially new group of cloned and hypothetical proteins. MDA5 is an early response gene which is activated by IFN and tumor necrosis factor α , and responds primarily to IFN- β . Expression of MDA5 is upregulated in the presence of MEZ (a protein kinase C activating compound). Expression of MDA5 in tissues is low overall, with highest levels observed in the placenta, pancreas and spleen; MDA5 is undetectable in brain, lung and testis tissues. MDA5 also recognizes polyinosine-polycytidylic acid and RNA viruses while playing a critical role in picornavirus detection.

CHROMOSOMAL LOCATION

Genetic locus: IFIH1 (human) mapping to 2q24.2; Ifih1 (mouse) mapping to 2 C1.3.

SOURCE

MDA5 (H-61) is a rabbit polyclonal antibody raised against amino acids 957-1017 mapping near the C-terminus of MDA5 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

MDA5 (H-61) is recommended for detection of MDA5 isoform 1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

MDA5 (H-61) is also recommended for detection of MDA5 isoform 1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for MDA5 siRNA (h): sc-61010, MDA5 siRNA (m): sc-61011, MDA5 shRNA Plasmid (h): sc-61010-SH, MDA5 shRNA Plasmid (m): sc-61011-SH, MDA5 shRNA (h) Lentiviral Particles: sc-61010-V and MDA5 shRNA (m) Lentiviral Particles: sc-61011-V.

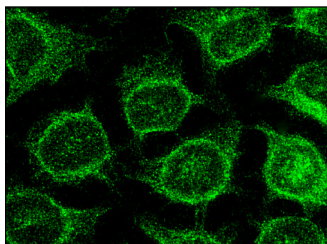
Molecular Weight of MDA5: 117 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204 or HeLa whole cell lysate: sc-2200.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



MDA5 (H-61): sc-134513. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Wang, X., et al. 2010. Hepatitis B virus X protein suppresses virus-triggered IRF3 activation and IFN- β induction by disrupting the VISA-associated complex. *Cell. Mol. Immunol.* 7: 341-348.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

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Try **MDA5 (C-5): sc-365630**, our highly recommended monoclonal alternative to MDA5 (H-61). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **MDA5 (C-5): sc-365630**.