

MNDA (C-3): sc-390739



The Power to Question

BACKGROUND

Interferon-inducible proteins include IFI-202, IFI-203, IFI-204 and D3, which are encoded by six or more structurally related and IFN-inducible mouse genes mapping at the q21-q23 region of chromosome 1. The proteins encoded by these genes have homologous 200 amino acid segments. IFI-202 is a primarily nuclear phosphoprotein which inhibits cell growth, in part by modulating transcriptional activity of NF κ B, E2F, AP-1 and p53. Two related human proteins, MNDA (myeloid cell nuclear differentiation antigen) and IFI-16, have also been described. Expression of MNDA has been observed specifically in cells of the granulocyte-macrophage lineage. IFI-16 is constitutively expressed in various T and B cell lines and can be induced by IFN- γ in HL60 cells. At least four of the gene 200 cluster of IFN-inducible proteins, IFI-202, IFI-204, MNDA and IFI-16, are localized in the nucleus.

REFERENCES

1. Tannenbaum, C.S., et al. 1993. A lipopolysaccharide-inducible macrophage gene (D3) is a new member of an interferon-inducible gene cluster and is selectively expressed in mononuclear phagocytes. *J. Leukoc. Biol.* 53: 563-568.
2. Briggs, R.C., et al. 1994. The human myeloid cell nuclear differentiation antigen gene is one of at least two related interferon-inducible genes located on chromosome 1q that are expressed specifically in hematopoietic cells. *Blood* 83: 2153-2162.

CHROMOSOMAL LOCATION

Genetic locus: MNDA (human) mapping to 1q23.1.

SOURCE

MNDA (C-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 372-407 of MNDA of human origin.

PRODUCT

Each vial contains 200 μ g IgG $_1$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

MNDA (C-3) is available conjugated to agarose (sc-390739 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390739 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390739 PE), fluorescein (sc-390739 FITC), Alexa Fluor[®] 488 (sc-390739 AF488), Alexa Fluor[®] 546 (sc-390739 AF546), Alexa Fluor[®] 594 (sc-390739 AF594) or Alexa Fluor[®] 647 (sc-390739 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-390739 AF680) or Alexa Fluor[®] 790 (sc-390739 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-390739 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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STORAGE

Store at 4 $^{\circ}$ C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

MNDA (C-3) is recommended for detection of MNDA of human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for MNDA siRNA (h): sc-40701, MNDA shRNA Plasmid (h): sc-40701-SH and MNDA shRNA (h) Lentiviral Particles: sc-40701-V.

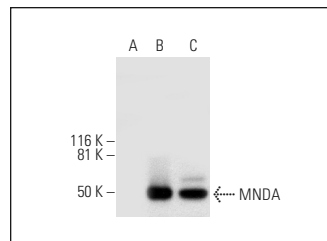
Molecular Weight of MNDA: 55 kDa.

Positive Controls: MNDA (h): 293T Lysate: sc-114942 or AML-193 whole cell lysate: sc-364182.

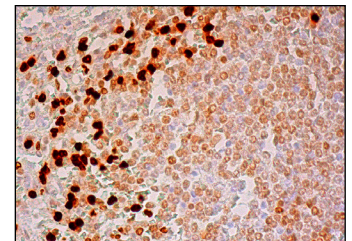
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



MNDA (C-3): sc-390739. Western blot analysis of MNDA expression in non-transfected 293T: sc-117752 (A), human MNDA transfected 293T: sc-114942 (B) and AML-193 (C) whole cell lysates.



MNDA (C-3): sc-390739. Immunoperoxidase staining of formalin fixed, paraffin-embedded human spleen tissue showing nuclear staining of cells in white pulp and cells in red pulp. Note strong nuclear staining of a subset of lymphoid cells in the red pulp.

SELECT PRODUCT CITATIONS

1. Bosso, M., et al. 2020. Nuclear PYHIN proteins target the host transcription factor Sp1 thereby restricting HIV-1 in human macrophages and CD4⁺ T cells. *PLoS Pathog.* 16: e1008752.

RESEARCH USE

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