

IFI-16 (G-4): sc-166472



The Power to Question

BACKGROUND

Interferon-inducible proteins include IFI-202, IFI-203, IFI-204 and D3, and 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 HL-60 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.
3. Dawson, M.J., et al. 1995. IFI-16 gene encodes a nuclear protein whose expression is induced by interferons in human myeloid leukaemia cell lines. *J. Cell Biol.* 57: 39-51.
4. Lengyel, P., et al. 1995. The interferon-activatable gene 200 cluster: from structure toward function. *Semin. Virol.* 6: 203-213.
5. Min, W., et al. 1996. The interferon-inducible p202 protein as a modulator of transcription: inhibition of NF κ B, c-Fos, and c-Jun activities. *Mol. Cell Biol.* 16: 359-368.

CHROMOSOMAL LOCATION

Genetic locus: IFI16 (human) mapping to 1q23.1.

SOURCE

IFI-16 (G-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 699-729 at the C-terminus of IFI-16 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.

Blocking peptide available for competition studies, sc-166472 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

IFI-16 (G-4) is recommended for detection of IFI-16 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 IFI-16 siRNA (h): sc-35633, IFI-16 shRNA Plasmid (h): sc-35633-SH and IFI-16 shRNA (h) Lentiviral Particles: sc-35633-V.

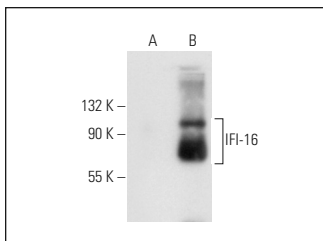
Molecular Weight of IFI-16: 85-95 kDa.

Positive Controls: Jurkat nuclear extract: sc-2132, BJAB whole cell lysate: sc-2207 or IFI-16 (h): 293 Lysate: sc-113241.

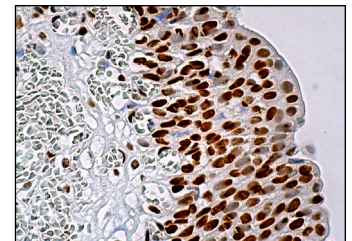
RECOMMENDED SUPPORT REAGENTS

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 MarkerTM 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



IFI-16 (G-4): sc-166472. Western blot analysis of IFI-16 expression in non-transfected: sc-110760 (A) and human IFI-16 transfected: sc-113241 (B) 293 whole cell lysates.



IFI-16 (G-4): sc-166472. Immunoperoxidase staining of formalin fixed, paraffin-embedded human urinary bladder showing nuclear staining of urothelial cells.

RESEARCH USE

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



See **IFI-16 (1G7): sc-8023** for IFI-16 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor[®] 488, 546, 594, 647, 680 and 790.