

## IFI-44 (N-18): sc-82937

### BACKGROUND

The Interferon (IFN) family of proteins are able to alter the expression of a variety of target genes, thereby controlling a number of events within the cell. IFI-44 (interferon-induced protein 44), also known as p44 or MTAP44 (microtubule-associated protein 44), is a 444 amino acid protein that localizes to the cytoplasm and, upon induction by IFN- $\beta$ s, aggregates to form microtubular structures. Human IFI-44 shares 97% sequence similarity with its chimp counterpart, suggesting a conserved role between species. The gene encoding IFI-44 maps to human chromosome 1, which spans 260 million base pairs, contains over 3,000 genes and comprises nearly 8% of the human genome. Chromosome 1 houses a large number of disease-associated genes, including those that are involved in familial adenomatous polyposis, Stickler syndrome, Parkinson's disease, Gaucher disease, schizophrenia and Usher syndrome. Aberrations in chromosome 1 are found in a variety of cancers, including head and neck cancer, malignant melanoma and multiple myeloma.

### REFERENCES

1. Takahashi, K., et al. 1990. Cloning, sequencing and expression in *Escherichia coli* of cDNA for a non-A, non-B hepatitis-associated microtubular aggregates protein. *J. Gen. Virol.* 71: 2005-2011.
2. Kitamura, A., et al. 1994. Induction of the human gene for p44, a hepatitis-C-associated microtubular aggregate protein, by interferon- $\alpha/\beta$ . *Eur. J. Biochem.* 224: 877-883.
3. Izmailova, E., et al. 2003. HIV-1 Tat reprograms immature dendritic cells to express chemoattractants for activated T cells and macrophages. *Nat. Med.* 9: 191-197.
4. Hwang, Y., et al. 2006. Genetic predisposition of responsiveness to therapy for chronic hepatitis C. *Pharmacogenomics* 7: 697-709.
5. Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 610468. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
6. Hallen, L.C., et al. 2007. Antiproliferative activity of the human IFN- $\alpha$ -inducible protein IFI44. *J. Interferon Cytokine Res.* 27: 675-680.
7. Mailaparambil, B., et al. 2008. Polymorphisms of interferons and their receptors in the genetics of severe RSV-associated diseases. *Arch. Virol.* 153: 2133-2137.

### CHROMOSOMAL LOCATION

Genetic locus: IFI44 (human) mapping to 1p31.1.

### SOURCE

IFI-44 (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of IFI-44 of human origin.

### PRODUCT

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

Blocking peptide available for competition studies, sc-82937 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

IFI-44 (N-18) is recommended for detection of IFI-44 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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); non cross-reactive with other IFI family members.

Suitable for use as control antibody for IFI-44 siRNA (h): sc-75320, IFI-44 shRNA Plasmid (h): sc-75320-SH and IFI-44 shRNA (h) Lentiviral Particles: sc-75320-V.

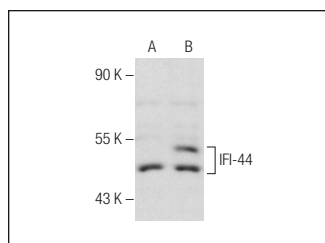
Molecular Weight of IFI-44: 44 kDa.

Positive Controls: IFI-44 (h): 293T Lysate: sc-370929, MDA-MB-231 cell lysate: sc-2232 or human placenta tissue extract.

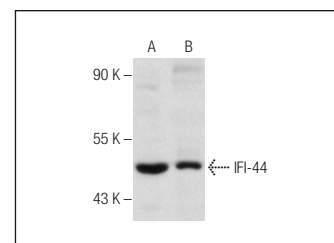
### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-24941.

### DATA



IFI-44 (N-18): sc-82937. Western blot analysis of IFI-44 expression in non-transfected: sc-117752 (A) and human IFI-44 transfected: sc-370929 (B) 293T whole cell lysates.



IFI-44 (N-18): sc-82937. Western blot analysis of IFI-44 expression in MDA-MB-231 whole cell lysate (A) and human placenta tissue extract (B).

### STORAGE

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

### RESEARCH USE

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

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.