



IFI-44 (E-13): sc-82935

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- β 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., Kitamura, N., Shibui, T., Kamizono, M., Matsui, R., Yoshiyama, Y., Maeda, T., Kondo, J., Honda, Y. and Yamada, E. 1990. Cloning, sequencing and expression in *Escherichia coli* of cDNA for a non-A, non-B hepatitis-associated microtubular aggregate protein. *J. Gen. Virol.* 71: 2005-2011.
2. Kitamura, A., Takahashi, K., Okajima, A. and Kitamura, N. 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., Bertley, F.M., Huang, Q., Makori, N., Miller, C.J., Young, R.A. and Aldovini, A. 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., Chen, E.Y., Gu, Z.J., Chuang, W.L., Yu, M.L., Lai, M.Y., Chao, Y.C., Lee, C.M., Wang, J.H., Dai, C.Y., Shian-Jy Bey, M., Liao, Y.T., Chen, P.J. and Chen, D.S. 2006. Genetic predisposition of responsiveness to therapy for chronic hepatitis C. *Pharmacogenomics.* 7: 697-709.
5. Online Mendelian Inheritance in Man, OMIM™. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 610468. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
6. Hallen, L.C., Burki, Y., Ebeling, M., Broger, C., Siegrist, F., Oroszlan-Szovik, K., Bohrmann, B., Certa, U. and Foser, S. 2007. Antiproliferative activity of the human IFN- α -inducible protein IFI44. *J. Interferon Cytokine Res.* 27: 675-680.
7. Mailaparambil, B., Jochum, J., Forster, J., Heinze, J., Krueger, M. and Heinzmann, A. 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* (mouse) mapping to 3 H3.

SOURCE

IFI-44 (E-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of IFI-44 of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-82935 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

IFI-44 (E-13) is recommended for detection of IFI-44 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 (m): sc-75321, IFI-44 shRNA Plasmid (m): sc-75321-SH and IFI-44 shRNA (m) Lentiviral Particles: sc-75321-V.

Molecular Weight of IFI-44: 44 kDa.

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™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) 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™ Mounting Medium: sc-24941.

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 or our catalog for detailed protocols and support products.