

IFI-44L (N-12): sc-131562

BACKGROUND

Interferon-induced protein 44-like (IFI-44L), also known as C1orf29, is a 452 amino acid cytoplasmic protein that shares some sequence similarities with IFI-44. IFI-44 is a cytoplasmic protein that aggregates to form microtubule structures. The genes that encode IFI-44L and IFI-44 are located on chromosome 1, which is the largest human chromosome spanning about 260 million base pairs and making up 8% of the human genome. There are about 3,000 genes on chromosome 1, and considering the great number of genes there are also a large number of diseases associated with chromosome 1. Notably, the rare aging disease Hutchinson-Gilford progeria is associated with the LMNA gene which encodes lamin A. When defective, the LMNA gene product can build up in the nucleus and cause characteristic nuclear blebs. The mechanism of rapidly enhanced aging is unclear and is a topic of continuing exploration. Stickler syndrome, Parkinsons, Gaucher disease and Usher syndrome are also associated with chromosome 1. Aberrations in chromosome 1 are found in a variety of cancers including head and neck cancer, malignant melanoma and multiple myeloma.

REFERENCES

1. Watson, M.L., et al. 1990. Genomic organization of the selectin family of leukocyte adhesion molecules on human and mouse chromosome 1. *J. Exp. Med.* 172: 263-272.
2. 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.
3. Kitamura, A., et al. 1994. Induction of the human gene for p44, a hepatitis-C-associated microtubular aggregate protein, by interferon- α/β . *Eur. J. Biochem.* 224: 877-883.
4. Online Mendelian Inheritance in Man, OMIM[™]. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 610468. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. 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.
6. Weise, A., et al. 2005. New insights into the evolution of chromosome 1. *Cytogenet. Genome Res.* 108: 217-222.
7. Marzin, Y., et al. 2006. Chromosome 1 abnormalities in multiple myeloma. *Anticancer Res.* 26: 953-959.
8. Hallen, L.C., et al. 2007. Antiproliferative activity of the human IFN- α -inducible protein IFI44. *J. Interferon Cytokine Res.* 27: 675-680.

CHROMOSOMAL LOCATION

Genetic locus: IFI44L (human) mapping to 1p31.1.

SOURCE

IFI-44L (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of IFI-44L 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.

Blocking peptide available for competition studies, sc-131562 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

IFI-44L (N-12) is recommended for detection of IFI-44L of human 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-44L siRNA (h): sc-78896, IFI-44L shRNA Plasmid (h): sc-78896-SH and IFI-44L shRNA (h) Lentiviral Particles: sc-78896-V.

Molecular Weight of IFI-44L: 51 kDa.

Positive Controls: Jurkat nuclear extract: sc-2132 or Jurkat whole cell lysate: sc-2204.

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.