

IFIT1 (H-50): sc-134948

BACKGROUND

Interferon-induced protein with tetratricopeptide repeats 1 (IFIT1), also known as glucocorticoid-attenuated response gene 16 protein (GARG-16), is a 463 amino acid protein belonging to the IFIT family. Studies have shown that IFIT1 plays a dominant role in the host response to different viruses in the central nervous system. Also, increased levels of IFIT1 in pregnancy have implicated a role in the endometrial pathways critical for uterine support of peri-implantation conceptus survival, growth and implantation. Containing 10 TPR repeats, the gene encoding human IFIT1 maps to chromosome 10q23.31. Chromosome 10 contains over 800 genes and 135 million nucleotides, making up nearly 4.5% of the human genome.

REFERENCES

- Chebath, J., et al. 1983. Interferon-induced 56,000 M_r protein and its mRNA in human cells: molecular cloning and partial sequence of the cDNA. *Nucleic Acids Res.* 11: 1213-1226.
- Bluyssen, H.A., et al. 1994. Structure, chromosome localization, and regulation of expression of the interferon-regulated mouse Irfi54/Irfi56 gene family. *Genomics* 24: 137-148.
- Smith, J.B. and Herschman, H.R. 1996. The glucocorticoid attenuated response genes GARG-16, GARG-39, and GARG-49/IRG2 encode inducible proteins containing multiple tetratricopeptide repeat domains. *Arch. Biochem. Biophys.* 330: 290-300.
- Kitamura, Y., et al. 2001. Lipopolysaccharide-induced switch between retinoid receptor (RXR) α and glucocorticoid attenuated response gene (GARG)-16 messenger RNAs in cultured rat microglia. *J. Neurosci. Res.* 64: 553-563.
- Hua, J., et al. 2006. Functional assay of type I interferon in systemic lupus erythematosus plasma and association with anti-RNA binding protein autoantibodies. *Arthritis Rheum.* 54: 1906-1916.
- Gray, C.A., et al. 2006. Identification of endometrial genes regulated by early pregnancy, progesterone, and interferon τ in the ovine uterus. *Biol. Reprod.* 74: 383-394.
- Pellagatti, A., et al. 2006. Gene expression profiles of CD34⁺ cells in myelodysplastic syndromes: involvement of interferon-stimulated genes and correlation to FAB subtype and karyotype. *Blood* 108: 337-345.
- Zhang, Y.B., et al. 2007. The innate immune response to grass carp hemorrhagic virus (GCHV) in cultured *Carassius auratus* blastulae (CAB) cells. *Dev. Comp. Immunol.* 31: 232-243.

CHROMOSOMAL LOCATION

Genetic locus: IFIT1 (human) mapping to 10q23.31.

SOURCE

IFIT1 (H-50) is a rabbit polyclonal antibody raised against amino acids 391-440 mapping near the C-terminus of IFIT1 of human origin.

RESEARCH USE

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

PRODUCT

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

APPLICATIONS

IFIT1 (H-50) is recommended for detection of IFIT1 of human origin by Western Blotting (starting dilution 1:200, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for IFIT1 siRNA (h): sc-75322, IFIT1 shRNA Plasmid (h): sc-75322-SH and IFIT1 shRNA (h) Lentiviral Particles: sc-75322-V.

Molecular Weight (predicted) of IFIT1: 56 kDa.

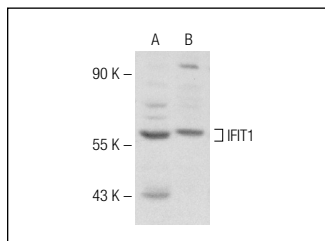
Molecular Weight (observed) of IFIT1: 62-66 kDa.

Positive Controls: Daudi + IFN- α cell lysate: sc-2266 or IFN- α treated HeLa whole cell lysate.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



IFIT1 (H-50): sc-134948. Western blot analysis of IFIT1 expression in IFN α treated Daudi (A) and IFN α treated HeLa (B) whole cell lysates.

STORAGE

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