SANTA CRUZ BIOTECHNOLOGY, INC.

IFIT1 (N-16): sc-82946

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 ten TPR repeats, the gene encoding human IFIT1 maps to chromosome 10q23.31. Chromo-some 10 contains over 800 genes and 135 million nucleotides, making up nearly 4.5% of the human genome.

REFERENCES

1. 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.
2. Bluyssen, H.A., et al. 1994. Structure, chromosome localization, and regulation of expression of the interferon-regulated mouse Ifi54/Ifi56 gene family. Genomics 24: 137-148.
3. 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.
4. 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.

CHROMOSOMAL LOCATION

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

SOURCE

IFIT1 (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of IFIT1 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-82946 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

APPLICATIONS

IFIT1 (N-16) 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 µg per 100-500 µg 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); non cross-reactive with other IFIT family members.

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.

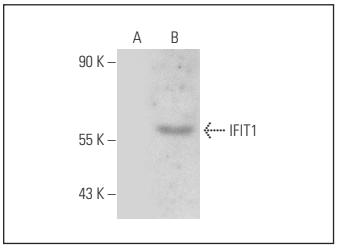
Molecular Weight (observed) of IFIT1: 62-66 kDa.

Positive Controls: IFIT1 (h2): 293T Lysate: sc-171775.

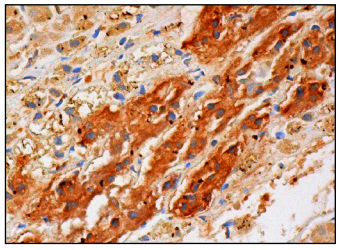
RECOMMENDED SECONDARY REAGENTS

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) 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™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



IFIT1 (N-16): sc-82946. Western blot analysis of IFIT1 expression in non-transfected: sc-117752 (**A**) and human IFIT1 transfected: sc-171775 (**B**) 293T whole cell lysates.



IFIT1 (N-16): sc-82946. Immunoperoxidase staining of formalin fixed, paraffin-embedded human adrenal gland tissue showing cytoplasmic staining of glandular cells.

RESEARCH USE

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