

# IFIT1 (A-18): sc-82941

## 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., Merlin, G., Metz, R., Benech, P. and Revel, M. 1983. Interferon-induced 56,000 M<sub>r</sub> protein and its mRNA in human cells: molecular cloning and partial sequence of the cDNA. *Nucleic Acids Res.* 11: 1213-1226.
- Blyuysen, H.A., Vlietstra, R.J., Faber, P.W., Smit, E.M., Hagemeyer, A. and Trapman, J. 1994. Structure, chromosome localization, and regulation of expression of the interferon-regulated mouse Ifi54/Ifi56 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., Spleiss, O., Li, H., Taniguchi, T., Kimura, H., Nomura, Y. and Gebicke-Haerter, P.J. 2001. Lipopolysaccharide-induced switch between retinoid receptor (RXR)  $\alpha$  and glucocorticoid attenuated response gene (GARG)-16 messenger RNAs in cultured rat microglia. *J. Neurosci. Res.* 64: 553-563.
- Hua, J., Kirou, K., Lee, C. and Crow, M.K. 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., Abbey, C.A., Beremand, P.D., Choi, Y., Farmer, J.L., Adelson, D.L., Thomas, T.L., Bazer, F.W. and Spencer, T.E. 2006. Identification of endometrial genes regulated by early pregnancy, progesterone, and interferon  $\tau$  in the ovine uterus. *Biol. Reprod.* 74: 383-394.

## CHROMOSOMAL LOCATION

Genetic locus: Ifit1 (mouse) mapping to 19 C1.

## SOURCE

IFIT1 (A-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of IFIT1 of mouse 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-82941 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

IFIT1 (A-18) is recommended for detection of IFIT1 of mouse and rat 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 IFIT family members.

Suitable for use as control antibody for IFIT1 siRNA (m): sc-75323, IFIT1 shRNA Plasmid (m): sc-75323-SH and IFIT1 shRNA (m) Lentiviral Particles: sc-75323-V.

Molecular Weight (predicted) of IFIT1: 56 kDa.

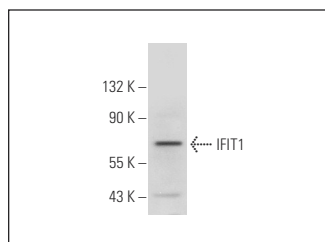
Molecular Weight (observed) of IFIT1: 62-66 kDa.

Positive Controls: PC-12 cell lysate: sc-2250.

## 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.

## DATA



IFIT1 (A-18): sc-82941. Western blot analysis of IFIT1 expression in PC-12 whole cell lysate.

## 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.