SANTA CRUZ BIOTECHNOLOGY, INC.

IFITM3 (A-24): sc-130785

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

IFITM3 (interferon induced transmembrane protein 3), also known as 1-8U or IP15, is a multi-pass membrane protein that belongs to the IFITM (interferon inducible transmembrane) family of proteins. IFITM proteins are induced by type I and type II interferons and contain multiple interferon (IFN)-stimulated response elements (ISREs) in their promoter regions. IFITM proteins play important roles in many cellular processes and their expression requires the presence of the chromatin remodeling SWI/SNF-like BAF complexes. Cellular processes involving IFITM proteins include cellular anti-proliferative activities and homotypic cell adhesion functions of interferons. In addition, IFITM genes are often upregulated in various cancer cells, suggesting a possible role in carcinogenesis. Localizing to the membrane, IFITM3 is a 133 amino acid protein that is induced by IFN-α and IFN-γ. IFITM3 expression can be regulated by TEF-1, Brg-1 and Sp1.

REFERENCES

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2. Pru, J.K., Austin, K.J., Haas, A.L. and Hansen, T.R. 2001. Pregnancy and interferon-τ upregulate gene expression of members of the 1-8 family in the bovine uterus. Biol. Reprod. 65: 1471-1480.
3. Liu, H., Kang, H., Liu, R., Chen, X. and Zhao, K. 2002. Maximal induction of a subset of interferon target genes requires the chromatin-remodeling activity of the BAF complex. Mol. Cell. Biol. 22: 6471-6479.
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5. Tanaka, S.S., Yamaguchi, Y.L., Tsoi, B., Lickert, H. and Tam, P.P. 2005. IFITM/Mil/Fragilis family proteins IFITM1 and IFITM3 play distinct roles in mouse primordial germ cell homing and repulsion. Dev. Cell 9: 745-756.
6. Andreu, P., Colnot, S., Godard, C., Laurent-Puig, P., Lamarque, D., Kahn, A., Perret, C. and Romagnolo, B. 2006. Identification of the IFITM family as a new molecular marker in human colorectal tumors. Cancer Res. 66: 1949-1955.

CHROMOSOMAL LOCATION

Genetic locus: IFITM3 (human) mapping to 11p15.5.

SOURCE

IFITM3 (A-24) is a purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of IFITM3 of human origin.

PRODUCT

Each vial contains 100 µg of IgG in PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

IFITM3 (A-24) is recommended for detection of IFITM3 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for IFITM3 siRNA (h): sc-97053, IFITM3 shRNA Plasmid (h): sc-97053-SH and IFITM3 shRNA (h) Lentiviral Particles: sc-97053-V.

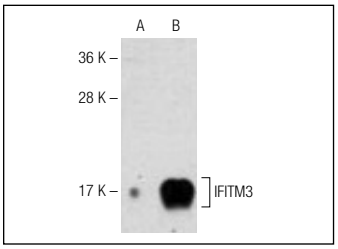
Molecular Weight of IFITM3: 14 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or IFITM3 (h): 293T Lysate: sc-110589.

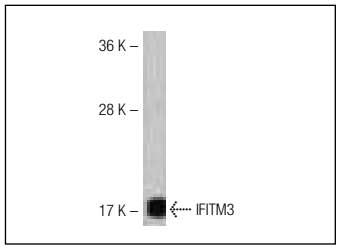
RECOMMENDED SECONDARY REAGENTS

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).

DATA



IFITM3 (A-24): sc-130785. Western blot analysis of IFITM3 expression in non-transfected (**A**) and human IFITM3 transfected (**B**) 293 whole cell lysates.



IFITM3 (A-24): sc-130785. Western blot analysis of IFITM3 expression in HeLa whole cell lysate.

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.

MONOS Satisfaction Guaranteed

Try **IFITM1/2/3 (F-12): sc-374026** or **IFITM3 (F-41): sc-100768**, our highly recommended monoclonal alternatives to IFITM3 (A-24).