

IFITM2 (M-144): sc-66828

BACKGROUND

Interferons (IFNs) are potential anti-tumor agents, as they exhibit anti-proliferative and differentiating properties, in addition to functioning in the defense against microbial infections. IFN exposure induces the regulation of expression levels of cellular proteins that mediate the pleiotropic effects of interferons. These effects may be mediated by soluble factors or by cell-cell interactions involving specific membrane proteins. The IFITM family of proteins are transmembrane proteins that are upregulated in human colorectal carcinomas. IFITM2 (interferon induced transmembrane protein 2), also known as mil-3, DSPA2c, Ifitm3l or fragilis3, is a 144 amino acid multi-pass membrane protein belonging to the CD225 family and interacts with CD81. Both mouse IFITM2 and Fragilis (also known as IFITM3) demonstrate expression on the cell surfaces of primordial germ cells in a developmentally-regulated manner.

REFERENCES

1. Reid, L.E., et al. 1989. A single DNA response element can confer inducibility by both α - and γ -interferons. *Proc. Natl. Acad. Sci. USA* 86: 840-844.
2. Deblandre, G.A., et al. 1995. Expression cloning of an interferon-inducible 17-kDa membrane protein implicated in the control of cell growth. *J. Biol. Chem.* 270: 23860-23866.
3. Perry, D.J., et al. 1999. Cloning of interferon-stimulated gene 17: the promoter and nuclear proteins that regulate transcription. *Mol. Endocrinol.* 13: 1197-1206.
4. Saitou, M., et al. 2002. A molecular programme for the specification of germ cell fate in mice. *Nature* 418: 293-300.
5. Akyerli, C.B., et al. 2005. Expression of IFITM1 in chronic myeloid leukemia patients. *Leuk. Res.* 29: 283-286.
6. Wylie, C. 2005. IFITM1-mediated cell repulsion controls the initial steps of germ cell migration in the mouse. *Dev. Cell* 9: 723-724.
7. Tanaka, S.S., et al. 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.
8. Andreu, P., et al. 2006. Identification of the IFITM family as a new molecular marker in human colorectal tumors. *Cancer Res.* 66: 1949-1955.

CHROMOSOMAL LOCATION

Genetic locus: Ifitm2 (mouse) mapping to 7 F5.

SOURCE

IFITM2 (M-144) is a rabbit polyclonal antibody raised against amino acids 1-144 representing full length IFITM2 of mouse origin.

PRODUCT

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

APPLICATIONS

IFITM2 (M-144) is recommended for detection of IFITM2, and to a lesser extent IFITM1 and Fragilis of mouse origin, and the corresponding rat homologs 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).

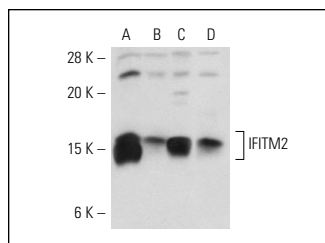
Molecular Weight of IFITM2: 16 kDa.

Positive Controls: IFITM2 (m): 293T Lysate: sc-126995, WEHI-231 whole cell lysate: sc-2213 or NFS-25 C-3 whole cell lysate: sc-364787.

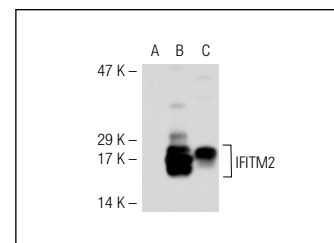
RECOMMENDED SECONDARY REAGENTS

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



IFITM2 (M-144): sc-66828. Western blot analysis of IFITM2 expression in M1 (A), NFS-25 C-3 (B) and WEHI-231 (C) whole cell lysates and mouse spleen tissue extract (D).



IFITM2 (M-144): sc-66828. Western blot analysis of IFITM2 expression in non-transfected 293T: sc-117752 (A), mouse IFITM2 transfected 293T: sc-126995 (B) and WEHI-231 (C) 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.

RESEARCH USE

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



Try **IFITM2 (A-6): sc-373676**, our highly recommended monoclonal alternative to IFITM2 (M-144).