

IFITM2 (E-19): sc-50902

BACKGROUND

Interferons (IFNs) are potential antitumor agents, as they exhibit antiproliferative 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 so named because their expression is IFN-inducible. IFITM proteins have been found upregulated in human colorectal carcinomas. Both mouse IFITM1 (also known as CD225) and IFITM3 demonstrate expression on the cell surfaces of primordial germ cells in a developmentally-regulated manner. They presumably modulate cell adhesion and influence cell differentiation. IFITM1 activity is required for primordial germ cell transit, and IFITM1 acts as a repulsive molecule by repelling non-IFITM1-expressing primordial germ cells from the mesoderm into the endoderm.

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.

CHROMOSOMAL LOCATION

Genetic locus: IFITM2 (human) mapping to 11p15.5; Ifitm2 (mouse) mapping to 7 F5.

SOURCE

IFITM2 (E-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of 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.

Blocking peptide available for competition studies, sc-50902 P, (100 μ g 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.

APPLICATIONS

IFITM2 (E-19) is recommended for detection of IFITM2 of mouse and, to a lesser extent, 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 IFITM2 siRNA (h): sc-96760, IFITM2 siRNA (m): sc-146153, IFITM2 shRNA Plasmid (h): sc-96760-SH, IFITM2 shRNA Plasmid (m): sc-146153-SH, IFITM2 shRNA (h) Lentiviral Particles: sc-96760-V and IFITM2 shRNA (m) Lentiviral Particles: sc-146153-V.

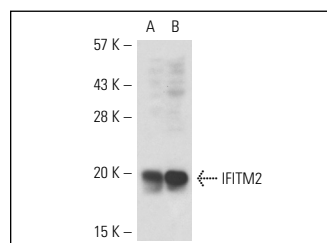
Molecular Weight of IFITM2: 17 kDa.

Positive Controls: WEHI-231 whole cell lysate: sc-2213, mouse spleen extract: sc-2391 or IFITM2 (m): 293T Lysate: sc-126995.

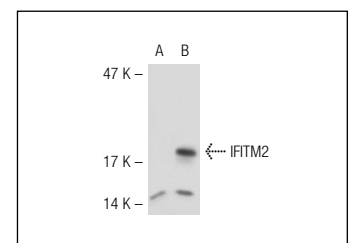
RECOMMENDED SECONDARY REAGENTS

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



IFITM2 (E-19): sc-50902. Western blot analysis of IFITM2 expression in WEHI-231 (A) and JM1 (B) whole cell lysates.



IFITM2 (E-19): sc-50902. Western blot analysis of IFITM2 expression in non-transfected: sc-117752 (A) and mouse IFITM2 transfected: sc-126995 (B) 293T whole cell lysates.

RESEARCH USE

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

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Try **IFITM2 (A-6): sc-373676**, our highly recommended monoclonal alternative to IFITM2 (E-19).