

IFITM1 (P-17): sc-34171

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.

CHROMOSOMAL LOCATION

Genetic locus: IFITM1 (human) mapping to 11p15.5.

SOURCE

IFITM1 (P-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of IFITM1 of human 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-34171 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

IFITM1 (P-17) is recommended for detection of IFITM1 of 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 IFITM1 siRNA (h): sc-44549, IFITM1 shRNA Plasmid (h): sc-44549-SH and IFITM1 shRNA (h) Lentiviral Particles: sc-44549-V.

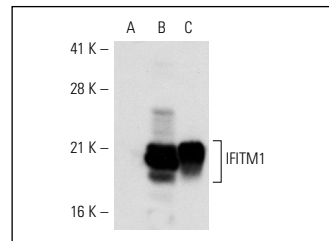
Molecular Weight of IFITM1: 17 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, IFITM1 (h2): 293 Lysate: sc-171351 or HeLa + IFN- α cell lysate: sc-2273.

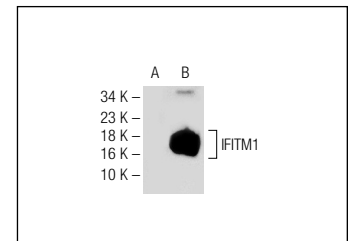
RECOMMENDED SECONDARY REAGENTS

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



IFITM1 (P-17): sc-34171. Western blot analysis of IFITM1 expression in non-transfected 293: sc-110760 (A), human IFITM1 transfected 293: sc-110559 (B) and K-562 (C) whole cell lysates.



IFITM1 (P-17): sc-34171. Western blot analysis of IFITM1 expression in non-transfected: sc-110760 (A) and human IFITM1 transfected: sc-171351 (B) 293 whole cell lysates.

SELECT PRODUCT CITATIONS

1. Salas, S., et al. 2009. Molecular characterization of the response to chemotherapy in conventional osteosarcomas: predictive value of HSD17B10 and IFITM2. *Int. J. Cancer* 125: 851-860.
2. Yu, F., et al. 2011. Knockdown of interferon-induced transmembrane protein 1 (IFITM1) inhibits proliferation, migration, and invasion of glioma cells. *J. Neurooncol.* 103: 187-195.
3. Chapat, C., et al. 2013. hCAF1/CNOT7 regulates interferon signalling by targeting STAT1. *EMBO J.* 32: 688-700.

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.

MONOS
Satisfaction
Guaranteed

Try **IFITM1/2/3 (F-12): sc-374026**, our highly recommended monoclonal alternative to IFITM1 (P-17).