

# IFITM2 (A-6): sc-373676

## 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 1-8D, is a 132 amino acid multi-pass membrane protein belonging to the CD225 family and is induced by IFN- $\alpha$  and IFN- $\gamma$ .

## REFERENCES

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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 (A-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 17-49 near the N-terminus of IFITM2 of mouse origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>3</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-373676 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## APPLICATIONS

IFITM2 (A-6) is recommended for detection of IFITM2 of mouse origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for IFITM2 siRNA (m): sc-146153, IFITM2 shRNA Plasmid (m): sc-146153-SH and IFITM2 shRNA (m) Lentiviral Particles: sc-146153-V.

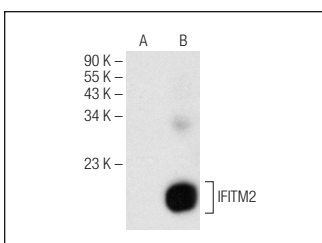
Molecular Weight of IFITM2: 17 kDa.

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

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



IFITM2 (A-6): sc-373676. Western blot analysis of IFITM2 expression in non-transfected: sc-117752 (A) and mouse IFITM2 transfected: sc-126995 (B) 293T whole cell lysates.

## SELECT PRODUCT CITATIONS

1. Prelli Bozzo, C., et al. 2021. IFITM proteins promote SARS-CoV-2 infection and are targets for virus inhibition *in vitro*. *Nat. Commun.* 12: 4584.

## 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.