SANTA CRUZ BIOTECHNOLOGY, INC.

IFIT2 (G-9): sc-398610

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The tetratricopeptide repeat (TPR) motif is a degenerate, 34 amino acid sequence found in many proteins and acts to mediate protein-protein interactions in various pathways. At the sequence level, there can be up to 16 tandem TPR repeats, each of which has a helix-turn-helix shape that stacks on other TPR repeats to achieve ligand binding specificity. IFIT2 (interferon-induced protein with tetratricopeptide repeats 2), also known as G10P2 or IFI54, is a 472 amino acid protein that contains six TPR repeats and may be involved in the negative regulation of cell growth and proliferation. The gene encoding IFIT2 maps to human chromosome 10, which houses over 1,200 genes and comprises nearly 4.5% of the human genome. Defects in some of the genes that map to chromosome 10 are associated with Charcot-Marie-Tooth disease, Jackson-Weiss syndrome, Usher syndrome, nonsyndromatic deafness, Wolman's syndrome, Cowden syndrome, multiple endocrine neoplasia type 2 and porphyria.

CHROMOSOMAL LOCATION

Genetic locus: Ifit2 (mouse) mapping to 19 C1.

SOURCE

IFIT2 (G-9) is a mouse monoclonal antibody raised against amino acids 23-78 mapping near the N-terminus of IFIT2 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

IFIT2 (G-9) is available conjugated to agarose (sc-398610 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398610 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398610 PE), fluorescein (sc-398610 FITC), Alexa Fluor® 488 (sc-398610 AF488), Alexa Fluor® 546 (sc-398610 AF546), Alexa Fluor® 594 (sc-398610 AF594) or Alexa Fluor® 647 (sc-398610 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398610 AF680) or Alexa Fluor® 790 (sc-398610 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

IFIT2 (G-9) is recommended for detection of IFIT2 of mouse origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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 IFIT2 siRNA (m): sc-75325, IFIT2 shRNA Plasmid (m): sc-75325-SH and IFIT2 shRNA (m) Lentiviral Particles: sc-75325-V.

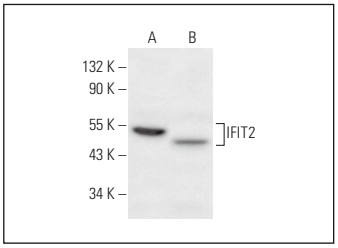
Molecular Weight of IFIT2: 55 kDa.

Positive Controls: WEHI-231 whole cell lysate: sc-2213 or RAW 264.7 whole cell lysate: sc-2211.

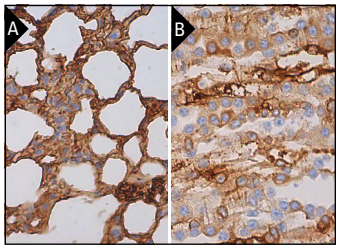
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



IFIT2 (G-9): sc-398610. Western blot analysis of IFIT2 expression in WEHI-231 (**A**) and RAW 264.7 (**B**) whole cell lysates.



IFIT2 (G-9): sc-398610. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse lung tissue showing cytoplasmic and membrane staining of pneumocytes and macrophages (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse kidney tissue showing cytoplasmic staining of cells in tubules (**B**).

SELECT PRODUCT CITATIONS

1. Davis, B.M., et al. 2017. IFIT2 is a restriction factor in rabies virus pathogenicity. J. Virol. 91: e00889-17.
2. Creisher, P.S., et al. 2020. Type II interferon signaling in the brain during a viral infection with age-dependent pathogenesis. Dev. Neurobiol. 80: 213-228.
3. Zhu, J., et al. 2022. LincRNA-EPS impairs host antiviral immunity by antagonizing viral RNA-PKR interaction. EMBO Rep. 23: e53937.

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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.