

IFIT3 (E-10): sc-393396

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. IFIT3 (interferon-induced protein with tetratricopeptide repeats 3), also known as IRG2, IFI60, IFIT4, ISG60 or RIG-G, is a 490 amino acid protein that contains 8 TPR repeats and may play a role in cell cycle regulation and cellular proliferation. The gene encoding IFIT3 maps to human chromosome 10q23.31, 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, nonsyndromic deafness, Wolman's syndrome, Cowden syndrome, multiple endocrine neoplasia type 2 and porphyria.

REFERENCES

1. Yu, M., et al. 1997. Cloning of a gene (RIG-G) associated with retinoic acid-induced differentiation of acute promyelocytic leukemia cells and representing a new member of a family of interferon-stimulated genes. *Proc. Natl. Acad. Sci. USA* 94: 7406-7411.
2. Zhu, H., et al. 1997. Use of differential display analysis to assess the effect of human cytomegalovirus infection on the accumulation of cellular RNAs: induction of interferon-responsive RNAs. *Proc. Natl. Acad. Sci. USA* 94: 13985-13990.
3. de Veer, M.J., et al. 1998. IFI60/ISG60/IFIT4, a new member of the human IFI54/IFIT2 family of interferon-stimulated genes. *Genomics* 54: 267-277.

CHROMOSOMAL LOCATION

Genetic locus: IFIT3 (human) mapping to 10q23.31; Ifit3 (mouse) mapping to 19 C1.

SOURCE

IFIT3 (E-10) is a mouse monoclonal antibody raised against amino acids 286-490 mapping at the C-terminus of IFIT3 of human origin.

PRODUCT

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

IFIT3 (E-10) is available conjugated to agarose (sc-393396 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393396 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393396 PE), fluorescein (sc-393396 FITC), Alexa Fluor® 488 (sc-393396 AF488), Alexa Fluor® 546 (sc-393396 AF546), Alexa Fluor® 594 (sc-393396 AF594) or Alexa Fluor® 647 (sc-393396 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393396 AF680) or Alexa Fluor® 790 (sc-393396 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

IFIT3 (E-10) is recommended for detection of IFIT3 of mouse, rat and human 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for IFIT3 siRNA (h): sc-75326, IFIT3 siRNA (m): sc-75327, IFIT3 shRNA Plasmid (h): sc-75326-SH, IFIT3 shRNA Plasmid (m): sc-75327-SH, IFIT3 shRNA (h) Lentiviral Particles: sc-75326-V and IFIT3 shRNA (m) Lentiviral Particles: sc-75327-V.

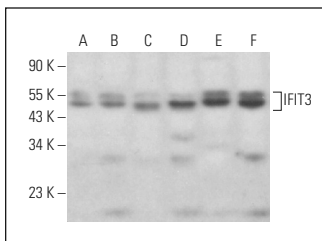
Molecular Weight of IFIT3: 58 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, c4 whole cell lysate: sc-364186 or A2058 whole cell lysate: sc-364178.

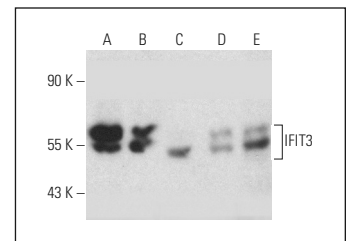
RECOMMENDED SUPPORT REAGENTS

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.

DATA



IFIT3 (E-10): sc-393396. Western blot analysis of IFIT3 expression in A2058 (A), c4 (B), MTE1D (C), MH-S (D), RAW 264.7 (E) and WEHI-231 (F) whole cell lysates.



IFIT3 (E-10): sc-393396. Western blot analysis of IFIT3 expression in HeLa (A), AMJ2-C8 (B), EOC 20 (C), I-11.15 (D) and NBT-II (E) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Guan, G., et al. 2018. Down-regulation of IFIT3 protects liver from ischemia-reperfusion injury. *Int. Immunopharmacol.* 60: 170-178.
2. Ishikawa, C., et al. 2018. Mitotic kinase PBK/TOPK as a therapeutic target for adult T-cell leukemia/lymphoma. *Int. J. Oncol.* 53: 801-814.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

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