SANTA CRUZ BIOTECHNOLOGY, INC.

IRF-3 (FL-425): sc-9082

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Interferon regulatory factor-1 (IRF-1) and IRF-2 have been identified as novel DNA-binding factors that function as regulators of both type I interferon (interferon-α and β) and interferon-inducible genes. The two factors are structurally related, particularly in their N-terminal regions, which confer DNA binding specificity. In addition, both bind to the same sequence within the promoters of interferon-α and interferon-β genes. IRF-1 functions as an activator of interferon transcription, while IRF-2 binds to the same *cis* elements and represses IRF-1 action. IRF-1 and IRF-2 have been reported to act in a mutually antagonistic manner in regulating cell growth; overexpression of the repressor IRF-2 leads to cell transformation while concomitant overexpression of IRF-1 causes reversion. IRF-1 and IRF-2 are members of a larger family of DNA binding proteins that includes IRF-3, IRF-4, IRF-5, IRF-6, IRF-7, ISGF-3γ p48 and IFN consensus sequence-binding protein (ICSBP).

CHROMOSOMAL LOCATION

Genetic locus: IRF3 (human) mapping to 19q13.33; Irf3 (mouse) mapping to 7 B4.

SOURCE

IRF-3 (FL-425) is a rabbit polyclonal antibody raised against amino acids 1-425 of IRF-3 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-9082 X, 200 µg/0.1 ml.

APPLICATIONS

IRF-3 (FL-425) is recommended for detection of IRF-3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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 IRF-3 siRNA (h): sc-35710, IRF-3 siRNA (m): sc-35711, IRF-3 shRNA Plasmid (h): sc-35710-SH, IRF-3 shRNA Plasmid (m): sc-35711-SH, IRF-3 shRNA (h) Lentiviral Particles: sc-35710-V and IRF-3 shRNA (m) Lentiviral Particles: sc-35711-V.

IRF-3 (FL-425) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of IRF-3: 50 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, HL-60 whole cell lysate: sc-2209 or Jurkat whole cell lysate: sc-2204.

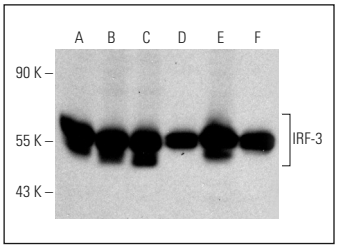
STORAGE

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

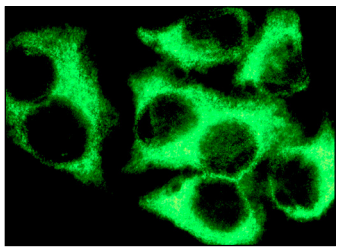
RESEARCH USE

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

DATA



IRF-3 (FL-425): sc-9082. Western blot analysis of IRF-3 expression in HeLa (**A**), HL-60 (**B**), Jurkat (**C**), Hep G2 (**D**), MCF7 (**E**) and PC-3 (**F**) whole cell lysates.



IRF-3 (FL-425): sc-9082. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

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2. Muto, V., et al. 2011. Human papillomavirus type 16 E5 protein induces expression of β interferon through interferon regulatory factor 1 in human keratinocytes. J. Virol. 85: 5070-5080.
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4. Zhang, Y.J., et al. 2011. Inhibition of primary effusion lymphoma engraftment in SCID mice by morpholino oligomers against early lytic genes of Kaposi's sarcoma-associated herpesvirus. Antivir. Ther. 16: 657-666.
5. Ng, M.H., et al. 2011. MIP-T3 is a negative regulator of innate type I IFN response. J. Immunol. 187: 6473-6482.
6. Chen, H., et al. 2011. Activation of STAT6 by STING is critical for antiviral innate immunity. Cell 147: 436-446.
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9. Chen, G.Y., et al. 2012. Defective antiviral responses of induced pluripotent stem cells to baculoviral vector transduction. J. Virol. 86: 8041-8049.