SANTA CRUZ BIOTECHNOLOGY, INC.

IRF-7 (3D9): sc-130509

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).

REFERENCES

1. Darnell, J.E., Jr., et al. 1994. JAK/Stat pathways and transcriptional activation in response to IFNs and other extracellular signaling proteins. Science 264: 1415-1421.
2. Zhang, L. and Pagano, J.S. 1997. IRF-7, a new interferon regulatory factor associated with Epstein-Barr virus latency. Mol. Cell. Biol. 17: 5748-5757.
3. Mamane, Y., et al. 1999. Interferon regulatory factors: the next generation. Gene 237: 1-14.
4. Ning, S., et al. 2003. Interferon regulatory factor 7 regulates expression of Epstein-Barr virus latent membrane protein 1: a regulatory circuit. J. Virol. 77: 9359-9368.
5. Prakash, A. and Levy, D.E. 2006. Regulation of IRF-7 through cell type-specific protein stability. Biochem. Biophys. Res. Commun. 342: 50-56.

CHROMOSOMAL LOCATION

Genetic locus: IRF7 (human) mapping to 11p15.5.

SOURCE

IRF-7 (3D9) is a mouse monoclonal antibody raised against amino acids 1-150 of recombinant IRF-7 of human origin.

PRODUCT

Each vial contains 50 µg IgG_1 in 0.5 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

PROTOCOLS

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

APPLICATIONS

IRF-7 (3D9) is recommended for detection of IRF-7 of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for IRF-7 siRNA (h): sc-38011, IRF-7 shRNA Plasmid (h): sc-38011-SH and IRF-7 shRNA (h) Lentiviral Particles: sc-38011-V.

Molecular Weight of IRF-7 isoform A: 54 kDa.

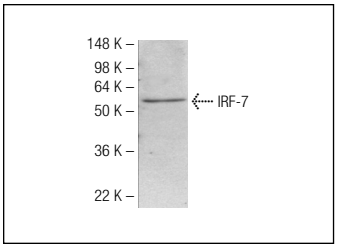
Molecular Weight of IRF-7 isoform B: 51 kDa.

Molecular Weight of IRF-7 isoform C: 18 kDa.

Molecular Weight of IRF-7 isoform D: 56 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, HuT 78 whole cell lysate: sc-2208 or Raji whole cell lysate: sc-364236.

DATA



IRF-7 (3D9): sc-130509. Western blot analysis of IRF-7 expression in Jurkat whole cell lysate.

SELECT PRODUCT CITATIONS

1. Kocic, G., et al. 2010. Circulating nucleic acids as possible damage-associated molecular patterns in different stages of renal failure. Ren. Fail. 32: 486-492.

RESEARCH USE

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

CONJUGATES

See **IRF-7 (G-8): sc-74472** for IRF-7 antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647.