IRF-2 (C-19): sc-498

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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 (a component of the ISGF-3 complex) and IFN consensus sequence -binding protein (ICSBP).

CHROMOSOMAL LOCATION

Genetic locus: IRF2 (human) mapping to 4q35.1, IRF3 (human) mapping to 19q13.33; Irf2 (mouse) mapping to 8 B1.1.

SOURCE

IRF-2 (C-19) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of IRF-2 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-498 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-498 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

IRF-2 (C-19) is recommended for detection of IRF-2 of mouse, rat and human origin and, to a lesser extent, IRF-3 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)], 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).

IRF-2 (C-19) is also recommended for detection of IRF-2 in additional species, including equine, canine, bovine, porcine and avian.

IRF-2 (C-19) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of IRF-2: 50 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or MM-142 cell lysate: sc-2246.
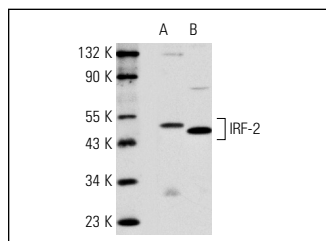
RESEARCH USE

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

STORAGE

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

DATA

IRF-2 (C-19): sc-498. Western blot analysis of IRF-2 expression in Jurkat (**A**) and MM-142 (**B**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Gustafson, K.S. and Ginder, G.D. 1996. Interferon-γ Induction of the human leukocyte antigen-E gene is mediated through binding of a complex containing STAT1a to a distinct interferon-γ-responsive element. J. Biol. Chem. 271: 20035-20046.

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3. Buttmann, M., et al. 2007. Interferon-β is a potent inducer of interferon regulatory factor-1/2-dependent IP-10/CXCL10 expression in primary human endothelial cells. J. Vasc. Res. 44: 51-60.

4. Eguchi, J., et al. 2008. Interferon regulatory factors are transcriptional regulators of adipogenesis. Cell Metab. 7: 86-94.

5. Zaheer, R.S., et al. 2009. Selective transcriptional down-regulation of human rhinovirus-induced production of CXCL10 from airway epithelial ells via the MEK1 pathway. J. Immunol. 182: 4854-4864.

6. Nakase, K., et al. 2009. Mechanisms of SHP-1 P2 promoter regulation in hematopoietic cells and its silencing in HTLV-1-transformed T cells. J. Leukoc. Biol. 85: 165-174.

7. Pettersson, S., et al. 2009. Role of Mdm2 acid domain interactions in recognition and ubiquitination of the transcription factor IRF-2. Biochem. J. 418: 575-585.

8. Upreti, M., et al. 2010. Pegylated IFN-α sensitizes melanoma cells to chemotherapy and causes premature senescence in endothelial cells by IRF-1 mediated signaling. Cell Death Dis. 1: e67.

MONOS
Satisfation Guaranteed

Try **IRF-2 (G-10): sc-374327** or **IRF-2 (TQ-5): sc-101069**, our highly recommended monoclonal alternatives to IRF-2 (C-19).