

IRF-6 (C-18): sc-30451

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-3 γ p48 and IFN consensus sequence-binding protein (ICSBP).

REFERENCES

1. Darnell, J.E. Jr., Kerr, I.M. and Stark, G.R. 1994. Jak-STAT pathways and transcriptional activation in response to IFNs and other extracellular signaling proteins. *Science* 264: 1415-1421.
2. Mamane, Y., Heylbroeck, C., Genin, P., Algarte, M., Servant, M.J., LePage, C., DeLuca, C., Kwon, H., Lin, R. and Hiscott, J. 1999. Interferon regulatory factors: the next generation. *Gene* 237: 1-14.
3. Kondo, S., Schutte, B.C., Richardson, R.J., Bjork, B.C., Knight, A.S., Watanabe, Y., Howard, E., de Lima, R.L., Daack-Hirsch, S., Sander, A., McDonald-McGinn, D.M., Zackai, E.H., Lammer, E.J., Aylsworth, A.S., Ardinger, H.H., Lidral, A.C., et al. 2002. Mutations in IRF6 cause Van der Woude and popliteal pterygium syndromes. *Nat. Genet.* 32: 285-289.
4. Zucchero, T.M., Cooper, M.E., Maher, B.S., Daack-Hirsch, S., Nepomuceno, B., Ribeiro, L., Caprau, D., Christensen, K., Suzuki, Y., Machida, J., Natsume, N., Yoshiura, K., Vieira, A.R., Orioli, I.M., Castilla, E.E., Moreno, L., Arcos-Burgos, M., Lidral, A.C., et al. 2004. Interferon regulatory factor 6 (IRF-6) gene variants and the risk of isolated cleft lip or palate. *N. Engl. J. Med.* 351: 769-780.

CHROMOSOMAL LOCATION

Genetic locus: IRF6 (human) mapping to 1q32.2; Irf6 (mouse) mapping to 1 H6.

SOURCE

IRF-6 (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of IRF-6 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-30451 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

IRF-6 (C-18) is recommended for detection of IRF-6 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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-6 (C-18) is also recommended for detection of IRF-6 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for IRF-6 siRNA (h): sc-105582, IRF-6 siRNA (m): sc-146286, IRF-6 shRNA Plasmid (h): sc-105582-SH, IRF-6 shRNA Plasmid (m): sc-146286-SH, IRF-6 shRNA (h) Lentiviral Particles: sc-105582-V and IRF-6 shRNA (m) Lentiviral Particles: sc-146286-V.

Molecular Weight of IRF-6: 52 kDa.

Positive Controls: Jurkat nuclear extract: sc-2132 or Jurkat whole cell lysate: sc-2204.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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 or our catalog for detailed protocols and support products.


 MONOS
 Satisfaction
 Guaranteed

Try **IRF-6 (F-12): sc-377043**, our highly recommended monoclonal alternative to IRF-6 (C-18).