# IRF-6 (B-24): sc-130790



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- $\alpha$  and  $\beta$ ) 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- $\alpha$  and interferon- $\beta$  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 $\gamma$ , p48 and IFN consensus sequence-binding protein (ICSBP).

## **REFERENCES**

- 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., Pober, B.R., Moreno, L., Arcos-Burgos, M., Valencia, C., Houdayer, C., Bahuau, M., Moretti-Ferreira, D., Richieri-Costa, A., Dixon, M.J. and Murray, J.C. 2002. Mutations in IRF6 cause Van der Woude and pop-liteal 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., Field, L.L., Liu, Y.E., Ray, A., Goldstein, T.H., Schultz, R.E., Shi, M., Johnson, M.K., Kondo, S., Schutte, B.C., Marazita, M.L. and Murray, J.C. 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.

# **SOURCE**

IRF-6 (B-24) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of IRF-6 of human origin.

#### **PRODUCT**

Each vial contains 100  $\mu g$  lgG in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

#### **APPLICATIONS**

IRF-6 (B-24) is recommended for detection of IRF-6 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-6 siRNA (h): sc-105582, IRF-6 shRNA Plasmid (h): sc-105582-SH and IRF-6 shRNA (h) Lentiviral Particles: sc-105582-V.

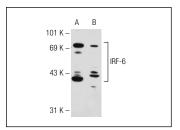
Molecular Weight of IRF-6: 52 kDa.

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 goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

# DATA



IRF-6 (B-24): sc-130790. Western blot analysis of IRF-6 expression in 293T whole cell lysates (**A**) and Jurkat nuclear extract (**B**).

#### **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.



Try **IRF-6 (F-12): sc-377043**, our highly recommended monoclonal alternative to IRF-6 (B-24).

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