

**anti-IFN  $\gamma$ R $\alpha$** 

Cat #: HM1184  
Rabbit polyclonal IgG  
0.2  $\mu$ g/ $\mu$ l, store at 4 °C

For research use only

**IFN-  $\gamma$ R $\alpha$  C-20): sc-700**

**BACKGROUND**

IFN- $\gamma$  induces a variety of biological responses, such as antiviral, antiproliferative and immunomodulatory activity in sensitive cells. The IFN- $\gamma$  receptor (IFN- $\gamma$ R) is composed of at least two chains, designated IFN- $\gamma$ R $\alpha$  and IFN- $\gamma$ R $\beta$ , respectively. Although IFN- $\gamma$ R $\alpha$  is sufficient for ligand binding, it alone does not confer responsiveness to IFN- $\gamma$ . Concomitant expression of IFN- $\gamma$ R $\alpha$  and IFN- $\gamma$ R $\beta$  is required for transcriptional activation of IFN- $\gamma$ -inducible genes. The IFN- $\gamma$ R $\beta$  chain may represent the signal transducing component of the IFN- $\gamma$ R. Activation of the IFN- $\gamma$  receptor leads to autophosphorylation of the Janus kinases JAK1 and JAK2, and the nuclear translocation of the transcription factors Stat1 $\alpha$  p91 and Stat1 $\beta$  p84.

**SPECIFICITY**

This antibody reacts with IFN-  $\gamma$ R $\alpha$  (also designated CD119) of mouse, rat and human origin by Western blotting, immunoprecipitation and immunohistochemistry.

Molecular Weight of IFN-  $\gamma$ R $\alpha$ : 83 kDa.

**IMMUNOGEN**

A peptide mapping at the carboxy terminus of human IFN-  $\gamma$ R $\alpha$ .

**STORAGE**

This antibody is stable for 12 months when stored at 2-8°C.

**REFERENCES**

1. Aguet, M., Dembic, Z., and Merlin, G. 1988. Molecular cloning and expression of the human interferon-  $\gamma$  receptor. *Cell* 55: 273-280.
2. Farrar, M.A. and Schreiber, R.D. 1993. The molecular cell biology of interferon-gamma and its receptor. *Ann. Rev. Immunol.* 11: 571-611.
3. Silvennoinen, O., Ihle, J.N., Schlessinger, J., and Levy, D.E. 1993. Interferon-induced nuclear signalling by Jak protein tyrosine kinases. *Nature* 366: 583-585.
4. Hemmi, S., Böhni, R., Stark, G., Di Marco, F., and Aguet, M. 1994. A novel member of the interferon receptor family complements functionality of the murine interferon receptor in human cells. *Cell* 76: 803-810.
5. 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.
6. Soh, J., Donnelly, R.J., Kolenko, S., Mariano, T.M., Cook, J.R., Wang, N., Emanuel, S., Schwartz, B., Miki, T., and Pestka, S. 1994. Identification and sequence of an accessory

factor required for activation of the human interferon receptor. *Cell* 76: 793-802.

7. Kolenko, S.V., Izotova, L.S., Pollack, B.P., Mariano, T.M., Donnelly, R.J., Muthukumaran, G., Cook, J.R., Garotta, G., Silvennoinen, O., Ihle, J.N. et al. (1995) Interaction between the components of the interferon gamma receptor complex. *J. Biol. Chem.* 270, 20915-20921.
8. Newport, M.J., Huxley, C.M., Huston, S., Hawrylowicz, C.M., Oostra, B.A., Williamson, R. and Levin, M. (1996) A mutation in the interferon-gamma-receptor gene and susceptibility to mycobacterial infection. *N. Engl. J. Med.* 335, 1941-1949.

**PRODUCTS FROM HYPROMATRIX, INC.****A. AntibodyArray™s:**

1. Signal Transduction AntibodyArray™  
Catalog Number HM3000
2. Apoptosis AntibodyArray™  
Catalog Number HM4000
3. Cell Cycle AntibodyArray™  
Catalog Number HM5000

**B. Staining AntibodyArray™s**

1. Staining AntibodyArray™ I  
Catalog Number HM8100
2. AntibodyArray Staining Apparatus  
Catalog Number HM8000

**C. Antibodies****1. HRP-conjugated antibodies**

- anti-phosphotyrosine  
Catalog Number HM2040
- anti-phosphoserine  
Catalog Number HM2070
- anti-phosphothreonine  
Catalog Number HM2090

and more...

**2. Primary antibodies**

Hypromatrix offers a variety of high quality antibodies. For a complete list of antibodies and their specificities, please visit our web site at [www.hypromatrix.com](http://www.hypromatrix.com).

**CONTACT**

**Hypromatrix, Inc.**  
100 Barber Avenue  
Worcester, MA 01606  
USA

Tel: 508-856-7900  
Fax: 508-302-0748  
Email: [contact@hypromatrix.com](mailto:contact@hypromatrix.com)  
Web: [www.hypromatrix.com](http://www.hypromatrix.com)