SANTA CRUZ BIOTECHNOLOGY, INC.

# IFN-γRα (M-20): sc-702

## BACKGROUND

IFN-γ induces a variety of biological responses, such as antiviral, antiproliferative and immunomodulatory activity in sensitive cells. Activation of the IFN-γ receptor (IFN-γR) leads to autophosphorylation of the Janus kinases JAK1 and JAK2, and the nuclear translocation of the transcription factors Stat1α p91 and Stat1β p84. The IFN-γR is composed of at least two chains, designated IFN-γRα and IFN-γRβ, respectively. Although expression of IFN-γRα is sufficient for ligand binding, it alone does not confer responsiveness to IFN-γ. Concomitant expression of IFN-γRα and IFN-γRβ is required for transcriptional activation of IFN-γ-inducible genes. The IFN-γRβ chain, also called AF-1, is 332 and 337 amino acids in length in mouse and human, respectively, and may represent the signal transducing component of the IFN-γR.

## REFERENCES


1. Orchansky, P., et al. 1984. Type I and type II interferon receptors. J. Interferon Res. 4: 275-282.
2. Novick, D., et al. 1987. The human interferon-γ receptor, purification, characterization and preparation of antibodies. J. Biol. Chem. 262: 8483-8487.


## CHROMOSOMAL LOCATION

Genetic locus: Ifngr1 (mouse) mapping to 10 A3.

## SOURCE

IFN-γRα (M-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of IFN-γRα of mouse origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-702 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

IFN-γRα (M-20) is recommended for detection of IFN-γRα of mouse and rat 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for IFN-γRα siRNA (m): sc-35636, IFN-γRα shRNA Plasmid (m): sc-35636-SH and IFN-γRα shRNA (m) Lentiviral Particles: sc-35636-V.

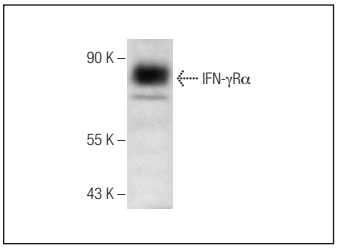
Molecular Weight of IFN-γRα: 80-95 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211, BYDP whole cell lysate: sc-364368 or WEHI-231 whole cell lysate: sc-2213.

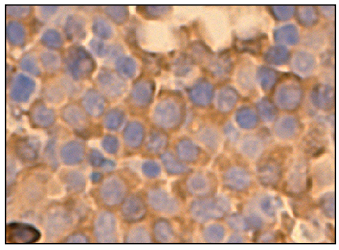
## STORAGE

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

## DATA




IFN-γRα (M-20): sc-702. Western blot analysis of IFN-γRα expression in BYDP whole cell lysate.



IFN-γRα (M-20): sc-702. Immunoperoxidase staining of formalin-fixed, paraffin-embedded mouse embryo tissue showing membrane localization.

## SELECT PRODUCT CITATIONS


1. Robertson, B., et al. 1997. Interferon-γ receptors in nociceptive pathways: role in neuropathic pain-related behaviour. NeuroReport 8: 1311-1316.
2. Lundkvist, G.B., et al. 1998. Expression of an oscillating interferon-γ receptor in the suprachiasmatic nuclei. NeuroReport 9: 1059-1063.
3. Luder, C.G., et al. 2001. Toxoplasma gondii down-regulates MHC class II gene expression and antigen presentation by murine macrophages via interference with nuclear translocation of STAT1α. Eur. J. Immunol. 31: 1475-1484.
4. Dimitrova, P., et al. 2010. The role of properdin in murine zymosan-induced arthritis. Mol. Immunol. 47: 1458-1466.
5. Wang, D., et al. 2010. $CD4^+$ $CD25^+$ but not $CD4^+$ $Foxp3^+$ T cells as a regulatory subset in primary biliary cirrhosis. Cell. Mol. Immunol. 7: 485-490.


## RESEARCH USE

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

## PROTOCOLS

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