

## IFN- $\gamma$ R $\beta$ (MOB-47): sc-12752

### BACKGROUND

IFN- $\gamma$  induces a variety of biological responses, such as antiviral, antiproliferative and immunomodulatory activity in sensitive cells. Activation of the IFN- $\gamma$  receptor (IFN- $\gamma$ R) 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. The IFN- $\gamma$ R is composed of at least two chains, designated IFN- $\gamma$ R $\alpha$  and IFN- $\gamma$ R $\beta$ , respectively. Although expression of 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, 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- $\gamma$ R.

### REFERENCES

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- Vilcek, J., et al. 1994. Recent progress in the elucidation of interferon- $\gamma$  actions: molecular biology and biological functions. *Int. Arch. Allergy Immunol.* 104: 311-316.
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### CHROMOSOMAL LOCATION

Genetic locus: *Ifngr2* (mouse) mapping to 16 C3.3.

### SOURCE

IFN- $\gamma$ R $\beta$  (MOB-47) is a hamster monoclonal antibody epitope mapping to the purified extracellular domain of IFN- $\gamma$ R $\beta$  of mouse origin.

### STORAGE

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

### PRODUCT

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

IFN- $\gamma$ R $\beta$  (MOB-47) is available conjugated to either phycoerythrin (sc-12752 PE) or fluorescein (sc-12752 FITC), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM.

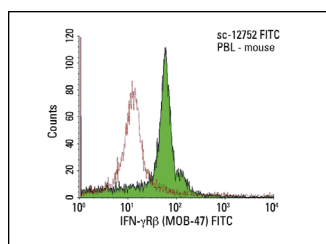
### APPLICATIONS

IFN- $\gamma$ R $\beta$  (MOB-47) is recommended for detection of IFN- $\gamma$ R $\beta$  of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1  $\mu$ g per 1 x 10<sup>6</sup> cells).

Suitable for use as control antibody for IFN- $\gamma$ R $\beta$  siRNA (m): sc-35635, IFN- $\gamma$ R $\beta$  shRNA Plasmid (m): sc-35635-SH and IFN- $\gamma$ R $\beta$  shRNA (m) Lentiviral Particles: sc-35635-V.

Molecular Weight of IFN- $\gamma$ R $\beta$ : 38 kDa.

### DATA



IFN- $\gamma$ R $\beta$  (MOB-47) FITC: sc-12752 FITC. FCM analysis of mouse peripheral blood leukocytes. Black line histogram represents the isotype control, normal Armenian hamster IgG-FITC: sc-2864.

### SELECT PRODUCT CITATIONS

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### RESEARCH USE

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