

## IL-7R (H-215): sc-25475

### BACKGROUND

Interleukin 7 (IL-7) was originally described as a factor capable of inducing *in vitro* proliferation of pre-B cells from marrow cultures. The IL-7 gene encodes a protein 177 amino acids in length. IL-7 exerts its biological function through the IL-7 receptor which is expressed on pre-B cells, thymocytes and bone marrow-derived macrophages. The IL-7 receptor is composed of an IL-7 receptor-specific chain and the IL-2 receptor  $\gamma$  chain common to the IL-2, IL-4, IL-7, IL-9 and IL-15 receptors. IL-7 stimulation leads to the activation of Janus tyrosine kinase family members JAK1 and JAK3. Other studies have shown that in T cells, the IL-7 receptor-specific chain associates with the Src kinases family Lck and Fyn. IL-7 induces phosphorylation of Insulin receptor substrate-1 (IRS-1) and Insulin receptor substrate-2 (IRS-2), originally called 4PS.

### REFERENCES

1. Mosley, B., et al. 1989. The murine Interleukin-4 receptor: molecular cloning and characterization of secreted and membrane bound forms. *Cell* 89: 335-348.
2. Goodwin, R.G., et al. 1990. Cloning of the human and murine Interleukin-7 receptors: demonstration of a soluble form and homology to a new receptor superfamily. *Cell* 60: 941-951.

### CHROMOSOMAL LOCATION

Genetic locus: IL7R (human) mapping to 5p13.2; Il7r (mouse) mapping to 15 A1.

### SOURCE

IL-7R (H-215) is a rabbit polyclonal antibody raised against amino acids 1-215 of IL-7R of human origin.

### PRODUCT

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

### APPLICATIONS

IL-7R (H-215) is recommended for detection of IL-7R of mouse, rat and human 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for IL-7R siRNA (h): sc-35664, IL-7R siRNA (m): sc-35665, IL-7R shRNA Plasmid (h): sc-35664-SH, IL-7R shRNA Plasmid (m): sc-35665-SH, IL-7R shRNA (h) Lentiviral Particles: sc-35664-V and IL-7R shRNA (m) Lentiviral Particles: sc-35665-V.

Molecular Weight of IL-7 heterodimer: 90 kDa.

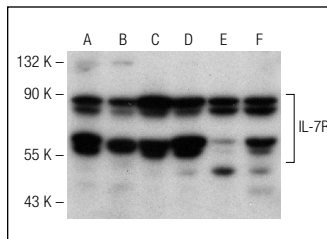
Molecular Weight of IL-7 $\alpha$  subunit: 76 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, WEHI-231 whole cell lysate: sc-2213 or Daudi cell lysate: sc-2415.

### 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<sup>™</sup> compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-24941.

### DATA



IL-7R (H-215): sc-25475. Western blot analysis of IL-7R expression in K-562 (A), WEHI-231 (B), Daudi (C), BJAB (D), AML-193 (E) and Jurkat (F) whole cell lysates.

### 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.

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **IL-7R (G-11): sc-514445**, our highly recommended monoclonal alternative to IL-7R (H-215).