

## IL-4R $\alpha$ (C-20): sc-684

### BACKGROUND

The IL-2 receptor is a multicomponent complex consisting of three subunits,  $\alpha$ ,  $\beta$  and  $\gamma$ , each of which is required for high affinity binding of IL-2. The  $\alpha$  chain functions primarily in binding IL-2, whereas the  $\beta$  and  $\gamma$  chains contribute to IL-2 binding and are essential to IL-2-induced activation of signaling pathways leading to T cell growth. Both IL-4R and IL-7R were initially described as single chain, high-affinity ligand-binding cytokine receptors. However, it is now well established that the IL-2R $\gamma$  chain functions as a second subunit of the high affinity IL-4R and IL-7R receptors. Consequently, the originally described subunits of these latter receptors are now referred to as IL-4R $\alpha$  and IL-7R $\alpha$ , respectively, while the common subunit is referred to as  $\gamma$ c. Although the common  $\gamma$  chain enhances ligand binding in these three cytokine receptors, it has no capacity to bind these ligands on its own. There is evidence that the  $\gamma$ c chain is also a subunit of IL-13R.

### CHROMOSOMAL LOCATION

Genetic locus: IL4R (human) mapping to 16p12.1.

### SOURCE

IL-4R $\alpha$  (C-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of IL-4R $\alpha$  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.

Blocking peptide available for competition studies, sc-684 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

IL-4R $\alpha$  (C-20) is recommended for detection of IL-4R $\alpha$  chain of 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), 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 IL-4R $\alpha$  siRNA (h): sc-35661, IL-4R $\alpha$  shRNA Plasmid (h): sc-35661-SH and IL-4R $\alpha$  shRNA (h) Lentiviral Particles: sc-35661-V.

Molecular Weight of IL-4R $\alpha$ : 140 kDa.

Molecular Weight of IL-4R $\alpha$  glycoprotein: 130 kDa.

Positive Controls: Daudi + IL-4 cell lysate: sc-2267, Ramos cell lysate: sc-2216 or HeLa whole cell lysate: sc-2200.

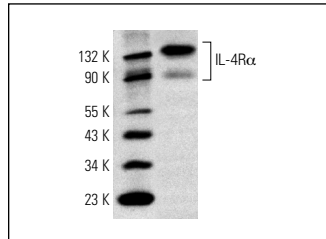
### STORAGE

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

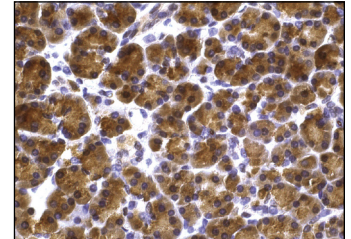
### RESEARCH USE

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

### DATA



IL-4R $\alpha$  (C-20): sc-684. Western blot analysis of IL-4R $\alpha$  expression in Ramos whole cell lysate.



IL-4R $\alpha$  (C-20): sc-684. Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic staining of glandular cells.

### SELECT PRODUCT CITATIONS

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