

# IL-2R $\beta$ (C-20): sc-671

## 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: IL2RB (human) mapping to 22q12.3; Il2rb (mouse) mapping to 15 E1.

## SOURCE

IL-2R $\beta$  (C-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of IL-2R $\beta$  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-671 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

IL-2R $\beta$  (C-20) is recommended for detection of IL-2R $\beta$  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).

IL-2R $\beta$  (C-20) is also recommended for detection of IL-2R $\beta$  in additional species, including equine, canine and bovine.

Suitable for use as control antibody for IL-2R $\beta$  siRNA (h): sc-35654, IL-2R $\beta$  siRNA (m): sc-35655, IL-2R $\beta$  shRNA Plasmid (h): sc-35654-SH, IL-2R $\beta$  shRNA Plasmid (m): sc-35655-SH, IL-2R $\beta$  shRNA (h) Lentiviral Particles: sc-35654-V and IL-2R $\beta$  shRNA (m) Lentiviral Particles: sc-35655-V.

Molecular Weight of IL-2R $\beta$ : 70-75 kDa.

Positive Controls: IL-2R $\beta$  (h2): 293T Lysate: sc-128876, CTLL-2 cell lysate: sc-2242 or BJAB whole cell lysate: sc-2207.

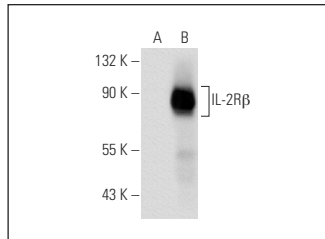
## STORAGE

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

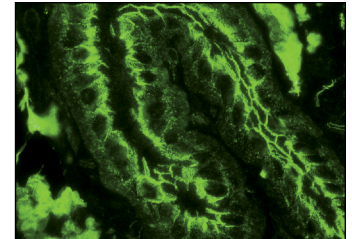
## RESEARCH USE

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

## DATA



IL-2R $\beta$  (C-20): sc-671. Western blot analysis of IL-2R $\beta$  expression in non-transfected: sc-117752 (A) and human IL-2R $\beta$  transfected: sc-128876 (B) 293T whole cell lysates.



IL-2R $\beta$  (C-20): sc-671. Immunofluorescence staining of normal mouse lymph node frozen section showing membrane staining.

## SELECT PRODUCT CITATIONS

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