

IL-2R β (M-20): sc-672

BACKGROUND

The IL-2 receptor is a multicomponent complex consisting of three subunits, α , β and γ , each of which is required for high-affinity binding of IL-2. The α chain functions primarily in binding IL-2, whereas the β and γ 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 γ 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 α and IL-7R α , respectively, while the common subunit is referred to as γ c. Although the common γ 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 γ 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 β (M-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of IL-2R β of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-672 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

IL-2R β (M-20) is recommended for detection of IL-2R β of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ 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-2R β siRNA (h): sc-35654, IL-2R β siRNA (m): sc-35655, IL-2R β shRNA Plasmid (h): sc-35654-SH, IL-2R β shRNA Plasmid (m): sc-35655-SH, IL-2R β shRNA (h) Lentiviral Particles: sc-35654-V and IL-2R β shRNA (m) Lentiviral Particles: sc-35655-V.

Molecular Weight of IL-2R β : 70-75 kDa.

Positive Controls: IL-2R β (h): 293T Lysate: sc-114166, IL-2R β (m): 293T Lysate: sc-121046 or HuT 78 whole cell lysate: sc-2208.

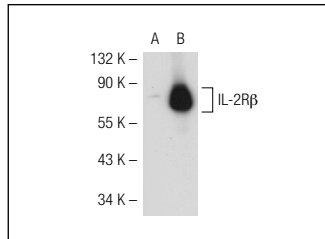
STORAGE

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

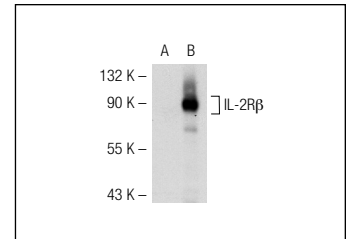
RESEARCH USE

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

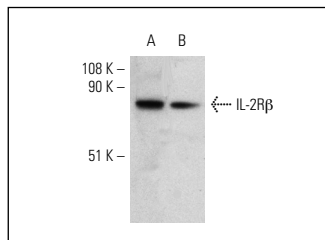
DATA



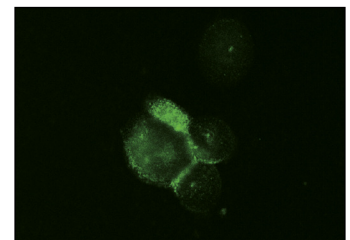
IL-2R β (M-20): sc-672. Western blot analysis of IL-2R β expression in non-transfected: sc-117752 (A) and human IL-2R β transfected: sc-114166 (B) 293T whole cell lysates.



IL-2R β (M-20): sc-672. Western blot analysis of IL-2R β expression in non-transfected: sc-117752 (A) and mouse IL-2R β transfected: sc-121046 (B) 293T whole cell lysates.



IL-2R β (M-20): sc-672. Western blot analysis of IL-2R β expression in HuT 78 (A) and CCRF-CEM (B) whole cell lysates.



IL-2R β (M-20): sc-672. Immunofluorescence staining of methanol-fixed HuT 78 cells showing membrane staining.

SELECT PRODUCT CITATIONS

- Wang, G., et al. 2001. Immunohistochemical localization of interleukin-2 and its receptor subunits α , β and γ in the main olfactory bulb of the rat. *Brain Res.* 893: 244-252.
- Ukai, H., et al. 2003. Formation of an active form of the interleukin-2/15 receptor β -chain by insertion of the intracisternal a particle in a radiation-induced mouse thymic lymphoma and its role in tumorigenesis. *Mol. Carcinog.* 37: 110-119.
- Davoodi-Semiromi, A., et al. 2004. A mutant Stat5b with weaker DNA binding affinity defines a key defective pathway in nonobese diabetic mice. *J. Biol. Chem.* 279: 11553-11561.
- Hocke, A.C., et al. 2007. Cell-specific interleukin-15 and interleukin-15 receptor subunit expression and regulation in pneumococcal pneumonia—comparison to chlamydial lung infection. *Cytokine* 38: 61-73.


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