

# IL-10R $\beta$ (G-19): sc-69576

## BACKGROUND

The IL-10 receptor, IL-10R, is a member of the class II subgroup of the cytokine receptor family and exhibits structural similarity to the interferon receptor. IL-10R is expressed in B cells and T helper cells, as well as in LPS-induced mouse fibroblasts. Overall, mouse IL-10R and human IL-10R share 60% sequence identity at the protein level. Stimulation with IL-10 leads to phosphorylation of JAK1 and Tyk 2 tyrosine kinases. The activated kinases phosphorylate the two tyrosine residues (Tyr 446 and Tyr 496) in the cytoplasmic domain of IL-10R $\alpha$ . The phosphorylation of these two residues are required for proper function of IL-10R and activation of IL-10E1 signaling. IL-10R $\beta$  is ubiquitously expressed and, in addition to forming the IL-10 heterodimeric receptor, it forms a heterodimeric receptor with an IL-22R subunit and an IL-28R subunit. IL-10R is constitutively expressed on human natural killer (NK) cells and the direct binding of IL-10 potentiates cytokine production by human NK cells.

## REFERENCES

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2. Weber-Nordt, R.M., Meraz, M.A. and Schreiber, R.D. 1994. Lipopolysaccharide-dependent induction of IL-10 receptor expression on murine fibroblasts. *J. Immunol.* 153: 3734-3744.
3. Ho, A.S., Wei, S.H., Mui, A.L., Miyajima, A. and Moore, K.W. 1995. Functional regions of the mouse interleukin-10 receptor cytoplasmic domain. *Mol. Cell. Biol.* 15: 5043-5053.
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5. Carson, W.E., Lindemann, M.J., Baiocchi, R., Linett, M., Tan, J.C., Chou, C.C., Narula, S. and Caligiuri, M.A. 1995. The functional characterization of interleukin-10 receptor expression on human natural killer cells. *Blood* 85: 3577-3585.

## CHROMOSOMAL LOCATION

Genetic locus: IL10RB (human) mapping to 21q22.11.

## SOURCE

IL-10R $\beta$  (G-19) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an extracellular domain of IL-10R $\beta$  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-69576 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

IL-10R $\beta$  (G-19) is recommended for detection of IL-10R $\beta$  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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

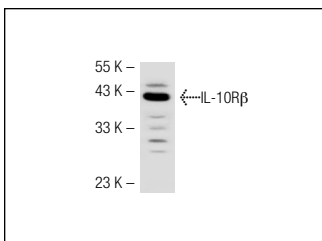
IL-10R $\beta$  (G-19) is also recommended for detection of IL-10R $\beta$  in additional species, including bovine.

Suitable for use as control antibody for IL-10R $\beta$  siRNA (h): sc-75331, IL-10R $\beta$  shRNA Plasmid (h): sc-75331-SH and IL-10R $\beta$  shRNA (h) Lentiviral Particles: sc-75331-V.

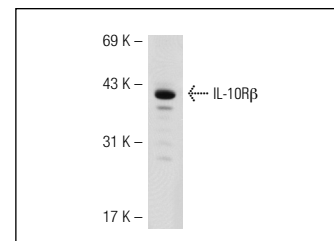
Molecular Weight of IL-10R $\beta$ : 37 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204 or U-937 cell lysate: sc-2239.

## DATA



IL-10R $\beta$  (G-19): sc-69576. Western blot analysis of IL-10R $\beta$  expression in Jurkat whole cell lysate.



IL-10R $\beta$  (G-19): sc-69576. Western blot analysis of IL-10R $\beta$  expression in U-937 whole cell lysate.

## 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.

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Try **IL-10R $\beta$  (F-6): sc-271969** or **IL-10R $\beta$  (B-4): sc-514822**, our highly recommended monoclonal alternatives to IL-10R $\beta$  (G-19).