

IL-10R (3F9): sc-53654

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 α . The phosphorylation of these two residues are required for proper function of IL-10R and activation of IL-10E1 signaling. IL-10R β 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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- Carson, W.E., et al. 1995. The functional characterization of interleukin-10 receptor expression on human natural killer cells. *Blood* 85: 3577-3585.
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- Stearns, M.E., et al. 2003. IL-10 signaling via IL-10E1 is dependent on tyrosine phosphorylation in the IL-10R alpha chain in human primary prostate cancer cell lines. *Oncogene* 22: 3781-3791.
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CHROMOSOMAL LOCATION

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

SOURCE

IL-10R (3F9) is a rat monoclonal antibody raised against full length soluble IL-10R of human origin.

PRODUCT

Each vial contains 100 μ g IgG_{2a} in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

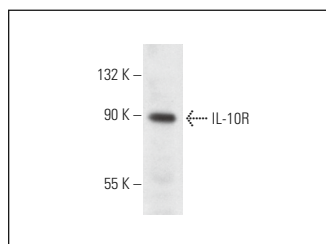
APPLICATIONS

IL-10R (3F9) is recommended for detection of IL-10R of 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)], flow cytometry (1 μ g per 1 x 10⁶ cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of IL-10R: 90-110 kDa.

Positive Controls: Ramos cell lysate: sc-2216.

DATA



IL-10R (3F9): sc-53654. Western blot analysis of IL-10R expression in Ramos whole cell lysate.

SELECT PRODUCT CITATIONS

- Jiang, H., et al. 2011. Regulation of interleukin-10 receptor ubiquitination and stability by β -TrCP-containing ubiquitin E3 ligase. *PLoS ONE* 6: e27464.
- Latorre, E., et al. 2013. IL-10 modulates serotonin transporter activity and molecular expression in intestinal epithelial cells. *Cytokine* 61: 778-784.

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 for detailed protocols and support products.