

# IL-21R (L-20): sc-23075

## BACKGROUND

The IL-21 receptor (also designated IL-21R, NILR or novel interleukin receptor) is a type I cytokine receptor that forms a complex with the cytokine receptor  $\gamma$  chain,  $\gamma(c)$ , and mediates IL-21 signaling. IL-21R is present on the surface of natural killer, B and T cell populations with high levels in spleen and thymus. IL-21 and IL-21R influence lymphoid proliferation and early lymphoid development in the transition between innate and adaptive immunity. Tumor necrosis factor (TNF) upregulates IL-21R, and combinations of TNF and IL-21 can have synergistic effects on myeloma cell proliferation through pathways involving phosphorylation of JAK1, Stat3, and ERK 1/2. The human IL-21R gene maps to chromosome 16p11 and encodes a 538 amino acid protein that is closely related to human IL2RB and shares 62% sequence identity to mouse IL-21R.

## REFERENCES

1. Parrish-Novak, J., et al. 2000. Interleukin-21 and its receptor are involved in NK cell expansion and regulation of lymphocyte function. *Nature* 408: 57-63.
2. Asao, H., et al. 2001. Cutting edge: the common  $\gamma$ -chain is an indispensable subunit of the IL-21 receptor complex. *J. Immunol.* 167: 1-5.

## CHROMOSOMAL LOCATION

Genetic locus: IL21R (human) mapping to 16p11; IL21r (mouse) mapping to 7 F4.

## SOURCE

IL-21R (L-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of IL-21R 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-23075 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

IL-21R (L-20) is recommended for detection of IL-21R 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).

Suitable for use as control antibody for IL-21R siRNA (h): sc-40053, IL-21R siRNA (m): sc-40054, IL-21R shRNA Plasmid (h): sc-40053-SH, IL-21R shRNA Plasmid (m): sc-40054-SH, IL-21R shRNA (h) Lentiviral Particles: sc-40053-V and IL-21R shRNA (m) Lentiviral Particles: sc-40054-V.

Molecular Weight (predicted) of IL-21R: 59 kDa.

Molecular Weight (observed) of unglycosylated IL-21R: 58 kDa.

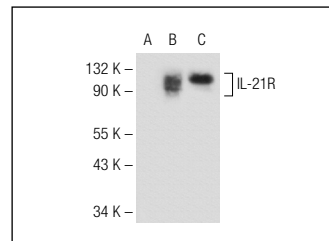
Molecular Weight (observed) of glycosylated IL-21R: 68-100 kDa.

Positive Controls: IL-21R (h): 293T Lysate: sc-175934 or Raji whole cell lysate.

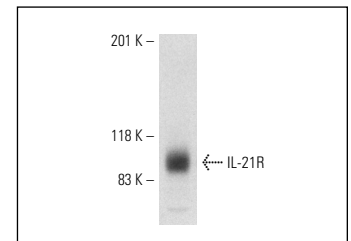
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/ 2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



IL-21R (L-20): sc-23075. Western blot analysis of IL-21R expression in non-transfected 293T: sc-117752 (A), human IL-21R transfected 293T: sc-175934 (B) and Raji (C) whole cell lysates.



IL-21R (L-20): sc-23075. Western blot analysis of IL-21R expression in Raji 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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Satisfaction  
Guaranteed

Try **IL-21R (H-11): sc-137120** or **IL-21R (G-6): sc-515062**, our highly recommended monoclonal alternatives to IL-21R (L-20).