

# IL-11R $\alpha$ (N-20): sc-993

## BACKGROUND

The pleiotropic cytokine, IL-11, has been shown to have proliferative and differentiation effects on lymphopoietic, myeloid and erythroid cells. IL-11 also has the inhibiting effect of repressing adipogenesis *in vitro*. The IL-11 $\alpha$  receptor, IL-11R $\alpha$ , is a member of the class I subgroup of the cytokine receptor family and exhibits structural similarity to the  $\alpha$  subunits of the human ciliary neurotrophic factor (CNTF) and the mouse IL-6 receptor. It is speculated that the IL-11R $\alpha$  regulates the proliferation and/or differentiation of skeletogenic progenitor and mesenchymal cells. Coexpression of gp130 and IL-11 $\alpha$  is necessary for high affinity binding of IL-11 to IL-11R $\alpha$ . It has also been found that coexpression of IL-11R $\alpha$  and gp130 is required for proper stimulation of Ba/F3 cells to differentiate into macrophage in response to IL-11.

## CHROMOSOMAL LOCATION

Genetic locus: IL11RA (human) mapping to 9p13.3; Il11ra1 (mouse) mapping to 4 A5.

## SOURCE

IL-11R $\alpha$  (N-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the N-terminus of IL-11R $\alpha$  of mouse origin.

## PRODUCT

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

IL-11R $\alpha$  (N-20) is available conjugated either phycoerythrin (sc-993 PE, 200  $\mu$ g/ml), Alexa Fluor<sup>®</sup> 488 (sc-993 AF488, 200  $\mu$ g/ml) or Alexa Fluor<sup>®</sup> 647 (sc-993 AF647, 200  $\mu$ g/ml), for IF, IHC(P) and FCM.

In addition, IL-11R $\alpha$  (N-20) is available conjugated to Alexa Fluor<sup>®</sup> 405 (sc-993 AF405), 100  $\mu$ g/2 ml, for IF, IHC(P) and FCM.

Blocking peptide available for competition studies, sc-993 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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## APPLICATIONS

IL-11R $\alpha$  (N-20) is recommended for detection of IL-11R $\alpha$  of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250), flow cytometry (1  $\mu$ g per 1 x 10<sup>6</sup> cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

IL-11R $\alpha$  (N-20) is also recommended for detection of IL-11R $\alpha$  in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for IL-11R $\alpha$  siRNA (h): sc-35647, IL-11R $\alpha$  siRNA (m): sc-35648, IL-11R $\alpha$  shRNA Plasmid (h): sc-35647-SH, IL-11R $\alpha$  shRNA Plasmid (m): sc-35648-SH, IL-11R $\alpha$  shRNA (h) Lentiviral Particles: sc-35647-V and IL-11R $\alpha$  shRNA (m) Lentiviral Particles: sc-35648-V.

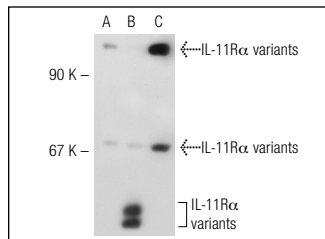
Molecular Weight of IL-11R $\alpha$ : 51/151 kDa.

Positive Controls: IL-11R $\alpha$  (m): 293T Lysate: sc-125491, Jurkat whole cell lysate: sc-2204 or K-562 whole cell lysate: sc-2203.

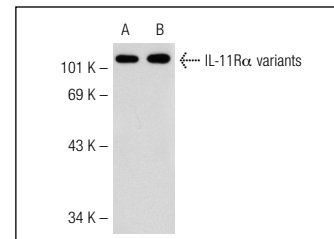
## STORAGE

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

## DATA



IL-11R $\alpha$  (N-20): sc-993. Western blot analysis of IL-11R $\alpha$  expression in non-transfected 293T: sc-117752 (A), mouse IL-11R $\alpha$  transfected 293T: sc-125491 (B) and Jurkat (C) whole cell lysates.



IL-11R $\alpha$  (N-20): sc-993. Western blot analysis of IL-11R $\alpha$  expression in 293T (A) and K-562 (B) whole cell lysates.

## SELECT PRODUCT CITATIONS

1. Bilinski, P., et al. 1998. Maternal IL-11R $\alpha$  function is required for normal decidua and fetoplacental development in mice. *Genes Dev.* 12: 2234-2243.
2. Campbell, C.L., et al. 2001. Increased expression of the interleukin-11 receptor and evidence of Stat3 activation in prostate carcinoma. *Am. J. Pathol.* 158: 25-32.
3. Wald, D., et al. 2003. SIGIRR, a negative regulator of toll-like receptor-interleukin-1 receptor signaling. *Nat. Immunol.* 4: 920-927.
4. Dimitriadis, E., et al. 2003. IL-11 and IL-11R $\alpha$  immunolocalisation at primate implantation sites supports a role for IL-11 in placentation and fetal development. *Reprod. Biol. Endocrinol.* 1: 34.
5. Qin, J., et al. 2005. SIGIRR inhibits interleukin-1 receptor- and toll-like receptor 4-mediated signaling through different mechanisms. *J. Biol. Chem.* 280: 25233-25241.
6. Yamazumi, K., et al. 2006. Expression of interleukin-11 and interleukin-11 receptor 1 in human colorectal adenocarcinoma; immunohistochemical analyses and correlation with clinicopathological factors. *World J. Gastroenterol.* 12: 317-321.
7. Yu, M., et al. 2008. Interleukin-6 cytokine family member oncostatin M is a hair-follicle-expressed factor with hair growth inhibitory properties. *Exp. Dermatol.* 17: 12-19.

## RESEARCH USE

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

**MONOS**  
Satisfaction  
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Try **IL-11R $\alpha$  (4D12): sc-130920** or **IL-11R $\alpha$  (F-10): sc-393039**, our highly recommended monoclonal alternatives to IL-11R $\alpha$  (N-20).