

IL-11R α (B-7): sc-393057

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 α receptor, IL-11R α , is a member of the class I subgroup of the cytokine receptor family and exhibits structural similarity to the subunits of the human ciliary neurotrophic factor (CNTF) and the mouse IL-6 receptor. It is speculated that the IL-11R α regulates the proliferation and/or differentiation of skeletogenic progenitor and mesenchymal cells. Coexpression of gp130 and IL-11 α is necessary for high affinity binding of IL-11 to IL-11R α . It has also been found that coexpression of IL-11R α and gp130 is required for proper stimulation of Ba/F3 cells to differentiate into macrophage in response to IL-11.

REFERENCES

1. Quesniaux, V.G., et al. 1993. Review of a novel hematopoietic cytokine, interleukin-11. *Int. Rev. Exp. Pathol.* 34A: 205-214.
2. Keith, J.C., et al. 1994. IL-11, a pleiotropic cytokine: exciting new effects of IL-11 on gastrointestinal mucosal biology. *Stem Cells* 12: 79-89.
3. Neuhaus, H., et al. 1994. Et12, a novel putative type-1 cytokine receptor expressed during mouse embryogenesis at high levels in skin and cells with skeletogenic potential. *Dev. Biol.* 166: 531-542.
4. Hilton, D.J., et al. 1994. Cloning of a murine IL-11 receptor α -chain; requirement for gp130 for high affinity binding and signal transduction. *EMBO J.* 13: 4765-4775.
5. Peters, S.O., et al. 1995. Murine marrow cells expanded in culture with IL-3, IL-6, IL-11, and SCF acquire an engraftment defect in normal hosts. *Exp. Hematol.* 23: 461-469.
6. Jacobsen, S.E., et al. 1995. The FLT3 ligand potently and directly stimulates the growth and expansion of primitive murine bone marrow progenitor cells *in vitro*: synergistic interactions with interleukin (IL) 11, IL-12, and other hematopoietic growth factors. *J. Exp. Med.* 181: 1357-1363.

CHROMOSOMAL LOCATION

Genetic locus: Il11ra1 (mouse) mapping to 4 A5.

SOURCE

IL-11R α (B-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 399-432 at the C-terminus of IL-11R α of mouse origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-393057 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

IL-11R α (B-7) is recommended for detection of IL-11R α of mouse and rat origin by Western Blotting (starting dilution 1:100, 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-11R α siRNA (m): sc-35648, IL-11R α shRNA Plasmid (m): sc-35648-SH and IL-11R α shRNA (m) Lentiviral Particles: sc-35648-V.

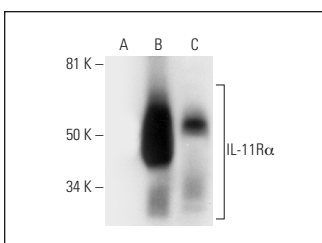
Molecular Weight of IL-11R α : 51/151 kDa.

Positive Controls: IL-11R α (m): 293T Lysate: sc-125491, RPE-J cell lysate: sc-24771 or 3T3-L1 cell lysate: sc-2243.

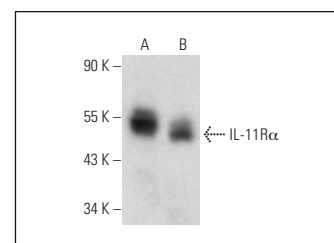
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz MarkerTM Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



IL-11R α (B-7): sc-393057. Western blot analysis of IL-11R α expression in non-transfected 293T: sc-117752 (A), mouse IL-11R α transfected 293T: sc-125491 (B) and 3T3-L1 (C) whole cell lysates.



IL-11R α (B-7): sc-393057. Western blot analysis of IL-11R α expression in 3T3-L1 (A) and RPE-J (B) whole cell lysates.

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.