SANTA CRUZ BIOTECHNOLOGY, INC.

IL-11Rα (m): 293T Lysate: sc-125491

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-11α receptor, IL-11Rα, is a member of the class I subgroup of the cytokine receptor family and exhibits structural similarity to the α subunits of the human ciliary neurotrophic factor (CNTF) and the mouse IL-6 receptor. It is speculated that the IL-11Rα regulates the proliferation and/or differentiation of skeletogenic progenitor and mesenchymal cells. Coexpression of gp130 and IL-11α is necessary for high affinity binding of IL-11 to IL-11Rα. It has also been found that coexpression of IL-11Rα 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. Intl. 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 1: 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.

PRODUCT

IL-11Rα (m): 293T Lysate represents a lysate of mouse IL-11Rα transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

IL-11Rα (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive IL-11Rα antibodies. Recommended use: 10-20 µl per lane.

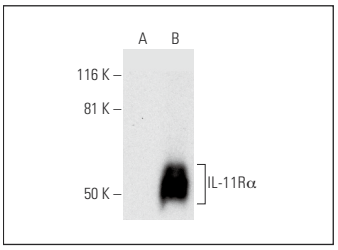
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

IL-11Rα (F-10): sc-393039 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse IL-11Rα expression in IL-11Rα transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

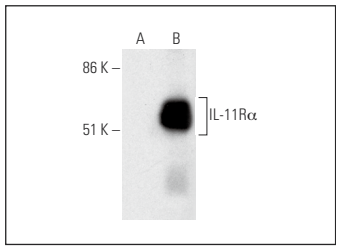
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



IL-11Rα (F-10): sc-393039. Western blot analysis of IL-11Rα expression in non-transfected: sc-117752 (**A**) and mouse IL-11Rα transfected: sc-125491 (**B**) 293T whole cell lysates.



IL-11Rα (H-3): sc-393227. Western blot analysis of IL-11Rα expression in non-transfected: sc-117752 (**A**) and mouse IL-11Rα transfected: sc-125491 (**B**) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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.