

IL-11 (H-169): sc-7924

BACKGROUND

Interleukin-11, or IL-11, is a pleiotropic cytokine that is biologically related to IL-6, leukemia inhibitory factor (LIF), oncostatin M (OSM) and ciliary neurotrophic factor (CNTF). IL-11 is a stromal cell-derived cytokine which stimulates the proliferation of primitive hematopoietic progenitor cells and, together with Flt 3-L, stimulates the expansion of CD34⁺ cell populations. Human IL-11 cDNA encodes a 199 amino acid precursor with a 21 amino acid hydrophobic signal peptide which is cleaved to generate a glycosylated biologically active form. IL-11 exerts its biological effects through the interleukin-11 receptor, IL-11R, which is composed of an IL-11 receptor-specific chain designated IL-11R α , and gp130, the signal transducing component common to the IL-6, LIF, OSM and CNTF receptors. Stimulation of the IL-11R results in the activation of the Janus tyrosine kinase family members JAK1 and JAK2 which, once activated, induce the nuclear translocation of the transcription factors Stat1 and Stat3.

REFERENCES

1. Paul, S.R., et al. 1990. Molecular cloning of a cDNA encoding interleukin 11, a stromal cell-derived lymphopoietic and hematopoietic cytokine. *Proc. Natl. Acad. Sci. USA* 87: 7512-7516.
2. Yang, Y.C., et al. 1995. Interleukin (IL)-11-mediated signal transduction. *Ann. N.Y. Acad. Sci.* 762: 31-40.

CHROMOSOMAL LOCATION

Genetic locus: IL11 (human) mapping to 19q13.42; IL11 (mouse) mapping to 7 A1.

SOURCE

IL-11 (H-169) is a rabbit polyclonal antibody raised against amino acids 31-199 of IL-11 of human origin.

PRODUCT

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

APPLICATIONS

IL-11 (H-169) is recommended for detection of IL-11 of mouse, rat and 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)], 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-11 siRNA (h): sc-39636, IL-11 siRNA (m): sc-39637, IL-11 shRNA Plasmid (h): sc-39636-SH, IL-11 shRNA Plasmid (m): sc-39637-SH, IL-11 shRNA (h) Lentiviral Particles: sc-39636-V and IL-11 shRNA (m) Lentiviral Particles: sc-39637-V.

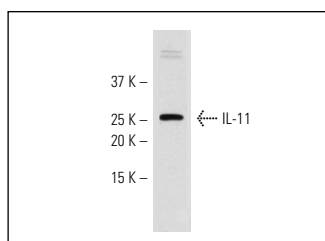
Molecular Weight of IL-11: 23 kDa.

Positive Controls: AN3 CA cell lysate: sc-24662, NIH/3T3 whole cell lysate: sc-2210 or IL-11 (h): 293T Lysate: sc-113495.

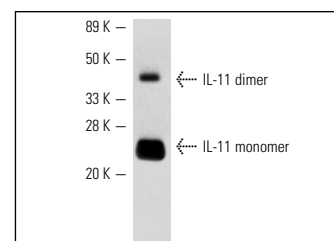
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

DATA



IL-11 (H-169): sc-7924. Western blot analysis of IL-11 expression in AN3 CA whole cell lysate.



IL-11 (H-169): sc-7924. Western blot analysis of human recombinant IL-11.

SELECT PRODUCT CITATIONS

1. Yamazumi, K., et al. 2006. Expression of interleukin-11 and interleukin-11 receptor α in human colorectal adenocarcinoma; immunohistochemical analyses and correlation with clinicopathological factors. *World J. Gastroenterol.* 12: 317-321.
2. Braunschweig, T., et al. 2007. Proteomic expression profiling of thyroid neoplasms. *Proteomics Clin. Appl.* 1: 264-271.
3. 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.
4. Nogueira-Silva, C., et al. 2013. The role of glycoprotein 130 family of cytokines in fetal rat lung development. *PLoS ONE* 8: e67607.

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.

MONOS
Satisfaction
Guaranteed

Try **IL-11 (A-9): sc-133063** or **IL-11 (A-7): sc-133062**, our highly recommended monoclonal alternatives to IL-11 (H-169).