

## IL-2 (H-133): sc-7896

### BACKGROUND

Lymphokines are a group of signaling molecules involved in communication between cells of the immune system. Lymphokines secreted by activated lymphocytes include proteins such as interleukin-2. This protein is secreted primarily by helper T cells that have been activated through the T cell receptor complex or by other mitogens. Cells targeted by IL-2 include activated T helper and cytotoxic T cells, inducing their proliferation. The secretion of IL-2 can also act as a growth factor for B cells. To date, three different IL-2-dependent signal transduction pathways have been identified: the c-Fos/c-Jun induction pathway mediated by Src family protein-tyrosine kinases, the c-Myc induction pathway and the rapamycin-sensitive pathway, all of which result in the induction of Bcl-2. In addition, the transcription factor NFAT has been shown to play a major role in the regulation of IL-2 transcription and correlates to an age-related decline in the expression of IL-2.

### REFERENCES

1. Smith, K.A. 1980. T cell growth factor. *Immunol. Rev.* 51: 337-357.
2. Taniguchi, T., et al. 1983. Structure and expression of a cloned cDNA for human interleukin-2. *Nature* 302: 305-310.

### CHROMOSOMAL LOCATION

Genetic locus: IL2 (human) mapping to 4q27; IL2 (mouse) mapping to 3 B.

### SOURCE

IL-2 (H-133) is a rabbit polyclonal antibody raised against amino acids 21-153 of IL-2 of human origin.

### PRODUCT

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

### APPLICATIONS

IL-2 (H-133) is recommended for detection of IL-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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-2 siRNA (h): sc-39619, IL-2 siRNA (m): sc-39620, IL-2 shRNA Plasmid (h): sc-39619-SH, IL-2 shRNA Plasmid (m): sc-39620-SH, IL-2 shRNA (h) Lentiviral Particles: sc-39619-V and IL-2 shRNA (m) Lentiviral Particles: sc-39620-V.

Molecular Weight of IL-2: 15 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, CCRF-CEM cell lysate: sc-2225 or HuT 78 whole cell lysate: sc-2208.

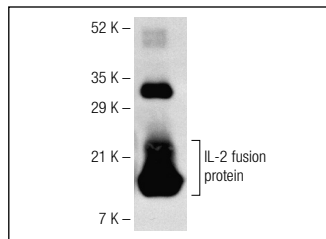
### RESEARCH USE

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

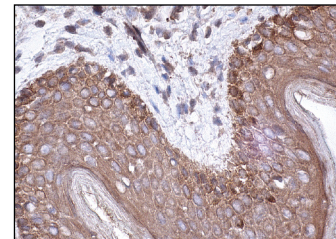
### STORAGE

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

### DATA



IL-2 (H-133): sc-7896. Western blot analysis of human recombinant IL-2 fusion protein.



IL-2 (H-133): sc-7896. Immunoperoxidase staining of formalin fixed, paraffin-embedded human skin tissue showing cytoplasmic staining of epidermal cells.

### SELECT PRODUCT CITATIONS

1. Tikkanen, J.M., et al. 2002. Blockade of CD28/B7-2 costimulation inhibits experimental obliterative bronchiolitis in rat tracheal allografts: suppression of helper T cell type1-dominated immune response. *Am. J. Respir. Crit. Care Med.* 165: 724-729.
2. Kikuchi, A., et al. 2008. IL-2 and proteoglycans synergistically induce antigen-specific B-cell responses—a possible immune response in the hyperplastic myasthenia thymus. *J. Neuroimmunol.* 205: 37-43.
3. Burgos-Ramos, E., et al. 2009. Sulfadiazine partially protects the rat temporal cortex from amyloid β peptide (25-35)-induced alterations of the somatostatinergic system. *Neuroendocrinology* 89: 400-410.
4. De Steenwinkel, J.E., et al. 2009. Immunological parameters to define infection progression and therapy response in a well-defined tuberculosis model in mice. *Int. J. Immunopathol. Pharmacol.* 22: 723-734.
5. Silva, A.C., et al. 2012. Exercise inhibits allergic lung inflammation. *Int. J. Sports Med.* 33: 402-409.
6. Yu, L., et al. 2014. Sarcomatoid variant of ALK- anaplastic large cell lymphoma involving multiple lymph nodes and both lungs with production of proinflammatory cytokines: report of a case and review of literature. *Int. J. Oncol.* 7: 4806-4816.
7. Zhang, Y., et al. 2015. Mutual enhancement of IL-2 and IL-7 on DNA vaccine immunogenicity mainly involves regulations on their receptor expression and receptor-expressing lymphocyte generation. *Vaccine* 33: 3480-3487.

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Try **IL-2 (F-5): sc-133118** or **IL-2 (C2-1-hIL2): sc-32295**, our highly recommended monoclonal alternatives to IL-2 (H-133).