

## IL-2 (H-20): sc-34797

### 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 (IL-2). This protein is secreted primarily by helper T cells that have been activated through the T cell receptor complex or by other mitogens. IL-2 targets 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.
3. Lowenthal, J.W., et al. 1985. Similarities between interleukin-2 receptor number and affinity on activated B and T lymphocytes. *Nature* 315: 669-672.
4. Guy, G.R., et al. 1990. Lymphokine signal transduction. *Prog. Growth Factor Res.* 2: 45-70.
5. Germann, T., et al. 1991. Components of an antigen/T cell receptor-independent pathway of lymphokine production. *Eur. J. Immunol.* 21: 1857-1861.
6. Miyazaki, T., et al. 1995. Three distinct IL-2 signaling pathways mediated by Bcl-2, c-Myc, and Lck cooperate in hematopoietic cell proliferation. *Cell* 81: 223-231.

### CHROMOSOMAL LOCATION

Genetic locus: IL2 (mouse) mapping to 3 B.

### SOURCE

IL-2 (H-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of IL-2 of mouse origin.

### PRODUCT

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

Blocking peptide available for competition studies, sc-34797 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### STORAGE

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

### APPLICATIONS

IL-2 (H-20) is recommended for detection of IL-2 of mouse and rat 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

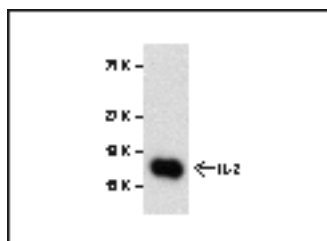
Suitable for use as control antibody for IL-2 siRNA (m): sc-39620, IL-2 shRNA Plasmid (m): sc-39620-SH and IL-2 shRNA (m) Lentiviral Particles: sc-39620-V.

Molecular Weight of IL-2: 15 kDa.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

### DATA



IL-2 (H-20) sc-34797. Western blot analysis of purified mouse IL-2.

### SELECT PRODUCT CITATIONS

1. Vieira, R.P., et al. 2009. Exercise reduces effects of creatine on lung. *Int. J. Sports Med.* 30: 684-690.

### RESEARCH USE

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

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Try **IL-2 (I2-C7): sc-57285**, our highly recommended monoclonal alternative to IL-2 (H-20).