

# IL-2 (K-12): sc-48544

## 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

IL-2 (K-12) 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-48544 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

IL-2 (K-12) 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), 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).

IL-2 (K-12) is also recommended for detection of IL-2 in additional species, including porcine.

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.

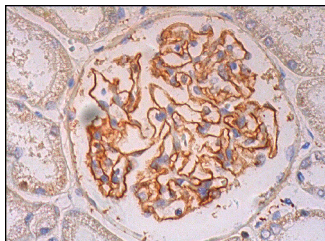
Molecular Weight of IL-2: 15 kDa.

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

## 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) 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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

## DATA



IL-2 (K-12): sc-48544. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing membrane staining of cells in glomeruli.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

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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 (K-12).