

IL-2 (F-5): sc-133118

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.

CHROMOSOMAL LOCATION

Genetic locus: IL2 (human) mapping to 4q27; Il2 (mouse) mapping to 3 B.

SOURCE

IL-2 (F-5) is a mouse monoclonal antibody raised against amino acids 21-153 of IL-2 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ lambda light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

IL-2 (F-5) is available conjugated to agarose (sc-133118 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-133118 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-133118 PE), fluorescein (sc-133118 FITC), Alexa Fluor® 488 (sc-133118 AF488), Alexa Fluor® 546 (sc-133118 AF546), Alexa Fluor® 594 (sc-133118 AF594) or Alexa Fluor® 647 (sc-133118 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-133118 AF680) or Alexa Fluor® 790 (sc-133118 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

IL-2 (F-5) is recommended for detection of IL-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 (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.

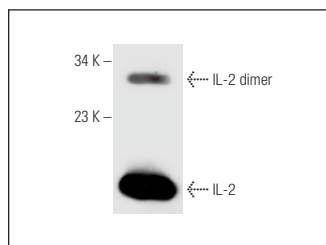
Molecular Weight of IL-2: 15 kDa.

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

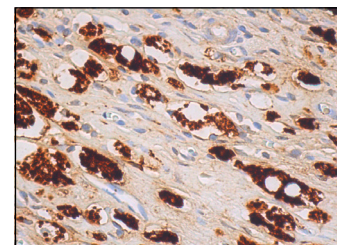
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGλ BP-HRP: sc-516132 or m-IgGλ BP-HRP (Cruz Marker): sc-516132-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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGλ BP-FITC: sc-516185 or m-IgGλ BP-PE: sc-516186 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



IL-2 (F-5): sc-133118. Western blot analysis of human recombinant IL-2.



IL-2 (F-5) HRP: sc-133118 HRP. Direct immunoperoxidase staining of formalin fixed, paraffin-embedded human blood vessels showing staining of plasma. Blocked with 0.25X UltraCruz® Blocking Reagent: sc-516214.

SELECT PRODUCT CITATIONS

- Luo, S., et al. 2018. Effect of nutritional supplement on bone marrow-derived mesenchymal stem cells from aplastic anaemia. *Br. J. Nutr.* 119: 748-758.
- Moroncini, G., et al. 2018. Mesenchymal stromal cells from human umbilical cord prevent the development of lung fibrosis in immunocompetent mice. *PLoS ONE* 13: e0196048.
- Park, Y., et al. 2021. Effects of hypothermia on inflammatory cytokine expression in rat liver following asphyxial cardiac arrest. *Exp. Ther. Med.* 21: 626.
- Lee, H.S. and Jeong, G.S. 2021. Therapeutic effect of kaempferol on atopic dermatitis by attenuation of T cell activity via interaction with multidrug resistance-associated protein 1. *Br. J. Pharmacol.* 178: 1772-1788.
- Scuderì, S.A., et al. 2022. Effect of melatonin on psoriatic phenotype in human reconstructed skin model. *Biomedicines* 10: 752.

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.