

IL-15 (L-20): sc-1296

BACKGROUND

Interleukin-15 (IL-15), also designated IL-T, is a cloned cytokine which shares several biological activities but no sequence homology with IL-2. Human, mouse and simian IL-15 cDNA clones have been isolated and characterized. All 3 species encode a 162 amino acid residue precursor protein containing a 48 amino acid leader that is cleaved to generate the mature form of IL-15. IL-15 stimulates the proliferation of T cells and NK cells, while enhancing B cell expansion and antibody production. Unlike IL-2, IL-15 is not produced by lymphocytes, but appears to be produced by macrophages, epithelial lines, muscle and placenta. IL-15 has also been shown to be a chemoattractant for human blood T lymphocytes and to be able to induce lymphokine-activated killer (LAK) activity in NK cells as well as to be able to induce the generation of cytolytic effector cells. Studies have shown that IL-15 is the only other cytokine that shares the β signaling subunit of the IL-2R. Evidence also suggests that like IL-2, IL-4 and IL-7, IL-15 utilizes the common IL-2R γ subunit.

CHROMOSOMAL LOCATION

Genetic locus: IL15 (human) mapping to 4q31.21; IL15 (mouse) mapping to 8 C2.

SOURCE

IL-15 (L-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of IL-15 of human origin.

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-1296 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

IL-15 (L-20) is recommended for detection of IL-15 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).

IL-15 (L-20) is also recommended for detection of IL-15 in additional species, including equine and feline.

Suitable for use as control antibody for IL-15 siRNA (h): sc-39645, IL-15 siRNA (m): sc-39646, IL-15 shRNA Plasmid (h): sc-39645-SH, IL-15 shRNA Plasmid (m): sc-39646-SH, IL-15 shRNA (h) Lentiviral Particles: sc-39645-V and IL-15 shRNA (m) Lentiviral Particles: sc-39646-V.

Molecular Weight of IL-15: 14-15 kDa.

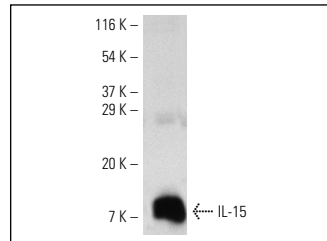
STORAGE

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.

DATA



IL-15 (L-20): sc-1296. Western blot analysis of human recombinant IL-15.

SELECT PRODUCT CITATIONS

- Hirose, K., et al. 1998. Interleukin-15 may be responsible for early activation of intestinal intraepithelial lymphocytes after oral infection with *Listeria monocytogenes* in rats. *Infect. Immun.* 66: 5677-5683.
- Gomez-Nicola, D., et al. 2009. Blockade of IL-15 activity inhibits microglial activation through the NF κ B, p38, and ERK1/2 pathways, reducing cytokine and chemokine release. *Glia* 58: 264-276.
- Shandley, S., et al. 2009. IL-4 receptor as a bridge between the immune system and muscle in experimental myasthenia gravis I: up-regulation of muscle IL-15 by IL-4. *Clin. Immunol.* 132: 246-256.
- Wu, X., et al. 2010. Cerebral interleukin-15 shows upregulation and beneficial effects in experimental autoimmune encephalomyelitis. *J. Neuroimmunol.* 223: 65-72.
- Gómez-Nicola, D., et al. 2011. Interleukin-15 regulates proliferation and self-renewal of adult neural stem cells. *Mol. Biol. Cell* 22: 1960-1970.
- Granado, N., et al. 2011. Dopamine D2-receptor knockout mice are protected against dopaminergic neurotoxicity induced by methamphetamine or MDMA. *Neurobiol. Dis.* 42: 391-403.
- Giron-Michel, J., et al. 2012. Interleukin-15 plays a central role in human kidney physiology and cancer through the γ c signaling pathway. *PLoS ONE* 7: e31624.
- Ochoa, M.C., et al. 2012. Liver gene transfer of interleukin-15 constructs that become part of circulating high density lipoproteins for immunotherapy. *PLoS ONE* 7: e52370.
- Urrutia, A., et al. 2014. The JNK inhibitor, SP600125, potentiates the glial response and cell death induced by methamphetamine in the mouse striatum. *Int. J. Neuropsychopharmacol.* 17: 235-246.


 MONOS
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Try **IL-15 (E-4): sc-8437** or **IL-15 (YNR-HIL15): sc-73311**, our highly recommended monoclonal alternatives to IL-15 (L-20).