

IL-17 (C-20): sc-6076

BACKGROUND

Cytokines are small, soluble proteins with pleiotropic effects on a variety of cell types. Cytokines have a regulatory function over the immune system and mediate aspects of inflammatory response. They exert their biological effects through the binding of membrane-bound receptors which, in turn, initiate signal transduction cascades and elicit physiological changes in their target cell. Interleukin-17 (IL-17) and its cognate receptor, IL-17R, are an example of such a cytokine receptor pair. Originally identified as a rodent cDNA termed CTLA8, IL-17 is capable of inducing the secretion of IL-6 and IL-8 and augmenting the expression of ICAM-1 in human fibroblast cultures. The IL-17 protein exhibits a striking degree of homology with the HSV13 protein which mimics its function. The IL-17 receptor is a type I transmembrane protein, 864 amino acids in length, that is highly expressed in spleen and kidney.

REFERENCES

1. Rouvier, E., et al. 1993. CTLA-8, cloned from an activated T cell, bearing AU-rich messenger RNA instability sequences, and homologous to a herpesvirus saimiri gene. *J. Immunol.* 150: 5445-5456.
2. Arend, W.P., et al. 1994. Binding of IL-1 α , IL-1 β , and IL-1 receptor antagonist by soluble IL-1 receptors and levels of soluble IL-1 receptors in synovial fluids. *J. Immunol.* 153: 4766-4774.
3. Yao, Z., et al. 1995. Herpesvirus saimiri encodes a new cytokine, IL-17, which binds to a novel cytokine receptor. *Immunity* 3: 811-821.
4. Yao, Z., et al. 1995. Human IL-17: a novel cytokine derived from T cells. *J. Immunol.* 155: 5483-5486.
5. Okamura, H., et al. 1995. Cloning of a new cytokine that induces IFN- γ production by T cells. *Nature* 378: 88-91.

CHROMOSOMAL LOCATION

Genetic locus: IL17A (human) mapping to 6p12.2; Il17a (mouse) mapping to 1 A4.

SOURCE

IL-17 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of IL-17 of human origin.

PRODUCT

Each vial contains 200 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-6076 P, (100 μ g 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.

RESEARCH USE

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

APPLICATIONS

IL-17 (C-20) is recommended for detection of IL-17 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-17 (C-20) is also recommended for detection of IL-17 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for IL-17 siRNA (h): sc-39649, IL-17 siRNA (m): sc-39650, IL-17 shRNA Plasmid (h): sc-39649-SH, IL-17 shRNA Plasmid (m): sc-39650-SH, IL-17 shRNA (h) Lentiviral Particles: sc-39649-V and IL-17 shRNA (m) Lentiviral Particles: sc-39650-V.

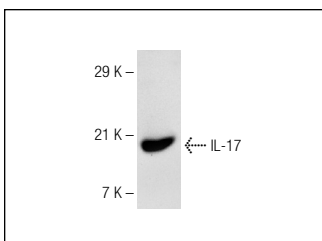
Molecular Weight of nonglycosylated IL-17: 15 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409 or LNCaP cell lysate: sc-2231.

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-17 (C-20): sc-6076. Western blot analysis of mouse recombinant IL-17.

SELECT PRODUCT CITATIONS

1. Fujino, S., et al. 2003. Increased expression of interleukin 17 in inflammatory bowel disease. *Gut* 52: 65-70.
2. Yan, X., et al. 2011. Maternal obesity induces sustained inflammation in both fetal and offspring large intestine of sheep. *Inflamm. Bowel Dis.* 17: 1513-1522.
3. Xue, Z.W., et al. 2013. Effects of Shenshao Decoction on the inflammatory response in the aorta of a rat atherosclerotic model. *Chin. J. Integr. Med.* 19: 347-352.