

IL-17R (S-18): sc-1902

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 of 864 amino acids in length, that is highly expressed in spleen and kidney.

REFERENCES

1. Rouvier, E., et al. 1993. CTLA8, 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. Okamura, H., et al. 1995. Cloning of a new cytokine that induces IFN- γ production by T cells. *Nature* 378: 88-91.
4. Yao, Z., et al. 1995. Human IL-17: a novel cytokine derived from T cells. *J. Immunol.* 155: 5483-5486.
5. Yao, Z., et al. 1995. Herpesvirus saimiri encodes a new cytokine, IL-17, which binds to a novel cytokine receptor. *Immunity* 3: 811-821.
6. Ihle, J.N. 1996. Janus kinases in cytokine signalling. *Philos. Trans. R. Soc. Lond., B, Biol. Sci.* 351: 159-166.
7. Cohen, M.C., et al. 1996. Cytokine function: a study in biologic diversity. *Amer. J. Clin. Pathol.* 105: 589-598.
8. Yao, Z., et al. 1996. Complete nucleotide sequence of the mouse CTLA8 gene. *Gene* 168: 223-225.

CHROMOSOMAL LOCATION

Genetic locus: Il17ra (mouse) mapping to 6 F1.

SOURCE

IL-17R (S-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of IL-17R of mouse 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-1902 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

IL-17R (S-18) is recommended for detection of IL-17R of mouse and rat 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for IL-17R siRNA (m): sc-40038, IL-17R shRNA Plasmid (m): sc-40038-SH and IL-17R shRNA (m) Lentiviral Particles: sc-40038-V.

Molecular Weight of IL-17R: 120 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) 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.

SELECT PRODUCT CITATIONS

1. Schwandner, R., et al. 2000. Requirement of tumor necrosis factor receptor-associated factor (TRAF)6 in interleukin-17 signal transduction. *J. Exp. Med.* 191: 1233-1240.
2. Higgins, S.C., et al. 2006. TLR4 mediates vaccine-induced protective cellular immunity to *Bordetella pertussis*: role of IL-17-producing T cells. *J. Immunol.* 177: 7980-7989.
3. Das Sarma, J., et al. 2009. Functional interleukin-17 receptor A is expressed in central nervous system glia and upregulated in experimental autoimmune encephalomyelitis. *J. Neuroinflammation* 6: 14.
4. Zhang, S.C., et al. 2012. Lentiviral vector-mediated down-regulation of IL-17A receptor in hepatic stellate cells results in decreased secretion of IL-6. *World J. Gastroenterol.* 18: 3696-3704.

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.



Try **IL-17R (G-9): sc-376374** or **IL-17R (F-12): sc-376600**, our highly recommended monoclonal alternatives to IL-17R (S-18).