



IL-17RE (G-12): sc-102616

BACKGROUND

The interleukins (ILs) are a broad family of well characterized cytokines, primarily of hematopoietic cell origin, and are secreted by immune cells (mainly macrophages, B cells or T cells) that regulate a wide range of immune system functions. The specific functions of different ILs vary from the regulation of inflammatory and immune responses to the regulation of other ILs. 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. IL-17RE (IL 17 receptor E) is a 667 amino acid protein that is expressed in a variety of tumors and, by alternative splicing, is produced as five isoforms. In mouse, IL-17RE is expressed in tissues, including lung, kidney, stomach, intestine and testis. IL-17RE is localized to the cellular membrane as a single-pass membrane protein and to the cytoplasm. IL-17RE is thought to activate the MARK signaling pathway and may function either at or upstream of Ras in order to induce mitogenic signaling. IL-17RE mRNA is detected in psoriatic skin lesions in lower concentrations than in nonlesional psoriatic skin, suggesting that lack of IL-17RE may cause skin lesions as a result of immune system impairment.

REFERENCES

1. Uyemura, K., et al. 1993. The cytokine network in lesional and lesion-free psoriatic skin is characterized by a T-helper type 1 cell-mediated response. *J. Invest. Dermatol.* 101: 701-705.
2. Menssen, A., et al. 1995. Evidence for an antigen-specific cellular immune response in skin lesions of patients with psoriasis vulgaris. *J. Immunol.* 155: 4078-4083.
3. Haudenschild, D., et al. 2002. Soluble and transmembrane isoforms of novel interleukin-17 receptor-like protein by RNA splicing and expression in prostate cancer. *J. Biol. Chem.* 277: 4309-4316.
4. Moseley, T.A., et al. 2003. Interleukin-17 family and IL-17 receptors. *Cytokine Growth Factor Rev.* 14: 155-174.
5. Li, T.S., et al. 2006. Identification and functional characterization of a novel interleukin 17 receptor: a possible mitogenic activation through Ras/mitogen-activated protein kinase signaling pathway. *Cell. Signal.* 18: 1287-1298.
6. Toy, D., et al. 2006. Cutting edge: interleukin 17 signals through a heteromeric receptor complex. *J. Immunol.* 177: 36-39.
7. Diveu, C., McGeachy, M.J. and Cua, D.J. 2008. Cytokines that regulate autoimmunity. *Curr. Opin. Immunol.* 20: 663-668.
8. Dong, C. 2008. Regulation and pro-inflammatory function of interleukin-17 family cytokines. *Immunol. Rev.* 226: 80-86.

CHROMOSOMAL LOCATION

Genetic locus: IL17RE (human) mapping to 3p25.3; Il17re (mouse) mapping to 6 E3.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

SOURCE

IL-17RE (G-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of IL-17RE of human 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-102616 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

IL-17RE (G-12) is recommended for detection of IL-17RE 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for IL-17RE siRNA (h): sc-78345, IL-17RE siRNA (m): sc-146207, IL-17RE shRNA Plasmid (h): sc-78345-SH, IL-17RE shRNA Plasmid (m): sc-146207-SH, IL-17RE shRNA (h) Lentiviral Particles: sc-78345-V and IL-17RE shRNA (m) Lentiviral Particles: sc-146207-V.

Molecular Weight of IL-17RE: 75 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.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.