

# IL-17RD (T-13): sc-99941

## 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. IL-17 and IL-17R are a cytokine receptor pair and, as such, are involved in initiating signal transduction cascades and in mediating aspects of inflammatory responses. IL-17RD (IL 17 receptor D) is also known as Sef homolog, hSef or SEF and is a 739 amino acid protein that is expressed in a variety of tissues, including ovary, breast, kidney, heart, skeletal muscle, colon, prostate and thyroid gland. IL-17RD is localized to the cytoplasm, as well as to both the Golgi apparatus membrane and to the cellular membrane as a single-pass membrane protein. IL-17RD modulates the signaling of FGFs (fibroblast growth factors) which are important for cellular proliferation, migration, differentiation and cellular survival. IL-17RD can form homomeric complexes and is thought to mediate the signaling of IL-17 by forming a heteromeric complex with IL-17R. IL-17R family members create different receptor complexes allowing interactions between different ligands. IL-17RD mRNA is detected in psoriatic skin lesions in lower concentrations than in nonlesional psoriatic skin. IL-17RD is thought to act as a tumor suppressor in humans because it is downregulated in a variety of cancers affecting epithelial cells of breast, prostate, thyroid gland and ovary.

## REFERENCES

1. Yang, R.B., et al. 2003. A novel interleukin-17 receptor-like protein identified in human umbilical vein endothelial cells antagonizes basic fibroblast growth factor-induced signaling. *J. Biol. Chem.* 278: 33232-33238.
2. Xiong, S., et al. 2003. hSef inhibits PC-12 cell differentiation by interfering with Ras-mitogen-activated protein kinase MAPK signaling. *J. Biol. Chem.* 278: 50273-50282.
3. Torii, S., et al. 2004. Sef is a spatial regulator for Ras/MAP kinase signaling. *Dev. Cell* 7: 33-44.
4. Preger, E., et al. 2004. Alternative splicing generates an isoform of the human Sef gene with altered subcellular localization and specificity. *Proc. Natl. Acad. Sci. USA* 101: 1229-1234.

## CHROMOSOMAL LOCATION

Genetic locus: IL17RD (human) mapping to 3p14.3; Il17rd (mouse) mapping to 14 A3.

## SOURCE

IL-17RD (T-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of IL-17RD 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-99941 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

IL-17RD (T-13) is recommended for detection of IL-17RD of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

IL-17RD (T-13) is also recommended for detection of IL-17RD in additional species, including equine, canine and bovine.

Suitable for use as control antibody for IL-17RD siRNA (h): sc-78429, IL-17RD siRNA (m): sc-146206, IL-17RD shRNA Plasmid (h): sc-78429-SH, IL-17RD shRNA Plasmid (m): sc-146206-SH, IL-17RD shRNA (h) Lentiviral Particles: sc-78429-V and IL-17RD shRNA (m) Lentiviral Particles: sc-146206-V.

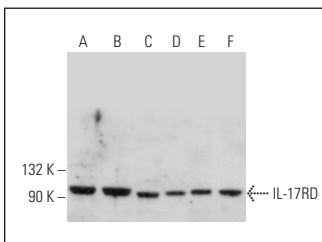
Molecular Weight of IL-17RD: 82 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409, NIH/3T3 whole cell lysate: sc-2210 or HEK293 whole cell lysate: sc-45136.

## 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-17RD (T-13): sc-99941. Western blot analysis of IL-17RD expression in IMR-32 (A), NIH/3T3 (B), HEK293 (C), SK-BR-3 (D), ZR-75-1 (E) and SK-N-MC (F) whole cell lysates.

## 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.