SANTA CRUZ BIOTECHNOLOGY, INC.

IL-17R (H-168): sc-30175

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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.

CHROMOSOMAL LOCATION

Genetic locus: IL17RA (human) mapping to 22q11.1; Il17r (mouse) mapping to 6 F1.

SOURCE

IL-17R (H-168) is a rabbit polyclonal antibody raised against amino acids 33-200 mapping within an N-terminal extracellular domain of IL-17R 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.

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-17R (H-168) is recommended for detection of IL-17R 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).

Suitable for use as control antibody for IL-17R siRNA (h): sc-40037, IL-17R siRNA (m): sc-40038, IL-17R shRNA Plasmid (h): sc-40037-SH, IL-17R shRNA Plasmid (m): sc-40038-SH, IL-17R shRNA (h) Lentiviral Particles: sc-40037-V and IL-17R shRNA (m) Lentiviral Particles: sc-40038-V.

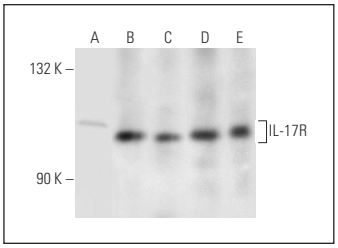
Molecular Weight of IL-17R: 120 kDa.

Positive Controls: Ramos cell lysate: sc-2216, MOLT-4 cell lysate: sc-2233 or Raji whole cell lysate: sc-364236.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



IL-17R (H-168): sc-30175. Western blot analysis of IL-17R expression in Caki-1 (**A**), Ramos (**B**), NIH/3T3 (**C**), MOLT-4 (**D**) and Raji (**E**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Qian, Y., et al. 2007. The adaptor Act1 is required for interleukin 17-dependent signaling associated with autoimmune and inflammatory disease. Nat. Immunol. 8: 247-256.
2. Wang, D.D., et al. 2009. IL-17 potentiates neuronal injury induced by oxygen-glucose deprivation and affects neuronal IL-17 receptor expression. J. Neuroimmunol. 212: 17-25.
3. Zhu, L., et al. 2011. IL-17R activation of human periodontal ligament fibroblasts induces IL-23 p19 production: differential involvement of NFκB versus JNK/AP-1 pathways. Mol. Immunol. 48: 647-656.
4. Zhang, Q., et al. 2012. Interleukin-17 promotes formation and growth of prostate adenocarcinoma in mouse models. Cancer Res. 72: 2589-2599.
5. Cho, K.A., et al. 2012. IL-17 and IL-22 enhance skin inflammation by stimulating the secretion of IL-1β by keratinocytes via the ROS-NLRP3-caspase-1 pathway. Int. Immunol. 24: 147-158.
6. Meng, X., et al. 2013. Spinal interleukin-17 promotes thermal hyperalgesia and NMDA NR1 phosphorylation in an inflammatory pain rat model. Pain 154: 294-305.