SANTA CRUZ BIOTECHNOLOGY, INC.

IL-17R (G-9): sc-376374

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; Il17ra (mouse) mapping to 6 F1.

SOURCE

IL-17R (G-9) is a mouse monoclonal 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_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

IL-17R (G-9) is available conjugated to agarose (sc-376374 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376374 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376374 PE), fluorescein (sc-376374 FITC), Alexa Fluor® 488 (sc-376374 AF488), Alexa Fluor® 546 (sc-376374 AF546), Alexa Fluor® 594 (sc-376374 AF594) or Alexa Fluor® 647 (sc-376374 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376374 AF680) or Alexa Fluor® 790 (sc-376374 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

APPLICATIONS

IL-17R (G-9) is recommended for detection of IL-17R of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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.

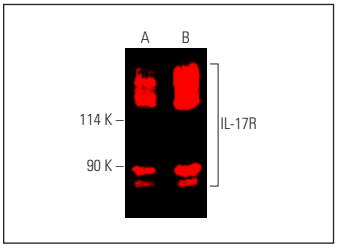
Molecular Weight of IL-17R: 120 kDa.

Positive Controls: Raji whole cell lysate: sc-364236, IL-17R (m) 293T Lysate: sc-178795 or MOLT-4 cell lysate: sc-2233.

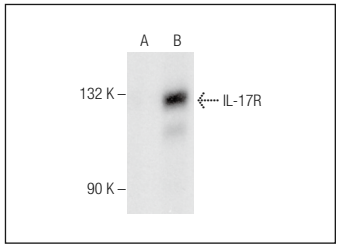
STORAGE

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

DATA



IL-17R (G-9): sc-376374. Near-Infrared western blot analysis of IL-17R expression in Raji (**A**) and MOLT-4 (**B**) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgG_1 BP-CFL 790: sc-533666.



IL-17R (G-9): sc-376374. Western blot analysis of IL-17R expression in non-transfected: sc-117752 (**A**) and mouse IL-17R transfected: sc-178795 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Lee, M.H., et al. 2018. Interleukin 17 and peripheral IL-17-expressing T cells are negatively correlated with the overall survival of head and neck cancer patients. Oncotarget 9: 9825-9837.
2. Lee, J.W., et al. 2019. Transcriptional modulation of the T helper 17/interleukin 17 axis ameliorates renal ischemia-reperfusion injury. Nephrol. Dial. Transplant. 34: 1481-1498.
3. Nanki, K., et al. 2020. Somatic inflammatory gene mutations in human ulcerative colitis epithelium. Nature 577: 254-259.
4. Luo, X., et al. 2021. IL-23/IL-17A/TRPV1 axis produces mechanical pain via macrophage-sensory neuron crosstalk in female mice. Neuron 109: 2691-2706.e5.
5. Miyashita, Y., et al. 2022. TICAM-1/TRIF associates with Act1 and suppresses IL-17 receptor-mediated inflammatory responses. Life Sci. Alliance 5: e202101181.
6. Wen, Y., et al. 2022. Intestinal dysbacteriosis-propelled T helper 17 cells activation mediate the perioperative neurocognitive disorder induced by anesthesia/surgery in aged rats. Neurosci. Lett. 783: 136741.
7. Luo, Q., et al. 2022. Chang qing formula ameliorates colitis-associated colorectal cancer via suppressing IL-17/NFκB/Stat3 pathway in mice as revealed by network pharmacology study. Front. Pharmacol. 13: 893231.
8. Meyer-Arndt, L., et al. 2023. Inflammatory cytokines associated with multiple sclerosis directly induce alterations of neuronal cytoarchitecture in human neurons. J. Neuroimmune Pharmacol.18: 145-159.
9. Kerkering, J., et al. 2023. iPSC-derived reactive astrocytes from patients with multiple sclerosis protect cocultured neurons in inflammatory conditions. J. Clin. Invest. 133: e164637.

RESEARCH USE

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