SANTA CRUZ BIOTECHNOLOGY, INC.

IL-17RC siRNA (m): sc-146205

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 interleukins vary from the regulation of inflammatory and immune responses to the regulation of other interleukins. 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-17RC (interleukin 17 receptor C) is a 791 amino acid single-pass type I transmembrane protein that may function as a receptor for IL-17. Existing as multiple alternatively spliced isoforms, IL-17RC is expressed in heart, brain, intestine, liver, kidney, lung, muscle, placenta and prostate and is encoded by a gene which maps to human chromosome 3.

REFERENCES

1. 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.
2. Toy, D., et al. 2006. Cutting edge: interleukin 17 signals through a heteromeric receptor complex. J. Immunol. 177: 36-39.
3. Haudenschild, D.R., et al. 2006. Generation of interleukin-17 receptor-like protein (IL-17RL) in prostate by alternative splicing of RNA. Prostate 66: 1268-1274.
4. Kuestner, R.E., et al. 2007. Identification of the IL-17 receptor related molecule IL-17RC as the receptor for IL-17F. J. Immunol. 179: 5462-5473.
5. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 610925. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
6. Zrioual, S., et al. 2008. IL-17RA and IL-17RC receptors are essential for IL-17A-induced ELR+ CXC chemokine expression in synoviocytes and are overexpressed in rheumatoid blood. J. Immunol. 180: 655-663.

CHROMOSOMAL LOCATION

Genetic locus: Il17rc (mouse) mapping to 6 E3.

PRODUCT

IL-17RC siRNA (m) is a pool of 3 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see IL-17RC shRNA Plasmid (m): sc-146205-SH and IL-17RC shRNA (m) Lentiviral Particles: sc-146205-V as alternate gene silencing products.

For independent verification of IL-17RC (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-146205A, sc-146205B and sc-146205C.

RESEARCH USE

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

STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNAses and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

IL-17RC siRNA (m) is recommended for the inhibition of IL-17RC expression in mouse cells.

SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10 µM in 66 µl. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor IL-17RC gene expression knockdown using RT-PCR Primer: IL-17RC (m)-PR: sc-146205-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

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