SANTA CRUZ BIOTECHNOLOGY, INC.

TECK siRNA (m): sc-39372

BACKGROUND

Chemokines are likely to play an important role in regulating the trafficking of developing T cells within the thymus. Chemokine C-C thymus expressed chemokine (TECK), also designated chemokine ligand 25 (CCL25), small inducible cytokine A25, chemokine β-15 or CK β-15, is expressed predominantly in thymic dendritic cells, thymic epithelial cells and in the small intestine. TECK, a CCR9 ligand, has suppressive activity against immature subsets of myeloid progenitors which have been stimulated to proliferate by multiple growth factors. TECK delivers signals through CCR9, which is important for the navigation of developing thymocytes. Bone marrow pre-pro-B cells and cells capable of generating pro-B colonies in the presence of interleukin-7 and Flt-3 ligand migrate to TECK, a response lost in later stages of B cell development.

REFERENCES

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2. Zabel, B.A., et al. 1999. Human G protein-coupled receptor GPR-9-6/C-C chemokine receptor 9 is selectively expressed on intestinal homing T lymphocytes, mucosal lymphocytes and thymocytes and is required for thymus-expressed chemokine-mediated chemotaxis. J. Exp. Med. 190: 1241-1256.
3. Norment, A.M., et al. 2000. Murine CCR9, a chemokine receptor for thymus-expressed chemokine that is upregulated following pre-TCR signaling. J. Immunol. 164: 639-648.
4. Yu, C.R., et al. 2000. CCR9A and CCR9B: two receptors for the chemokine CCL25/TECK/Ck β-15 that differ in their sensitivities to ligand. J. Immunol. 164: 1293-1305.
5. Gosling, J., et al. 2000. Cutting edge: identification of a novel chemokine receptor that binds dendritic cell- and T cell-active chemokines including ELC, SLC and TECK. J. Immunol. 164: 2851-2856.
6. Bowman, E.P., et al. 2000. Developmental switches in chemokine response profiles during B cell differentiation and maturation. J. Exp. Med. 191: 1303-1318.
7. Wurbel, M.A., et al. 2000. The chemokine TECK is expressed by thymic and intestinal epithelial cells and attracts double- and single-positive thymocytes expressing the TECK receptor CCR9. Eur. J. Immunol. 30: 262-271.

CHROMOSOMAL LOCATION

Genetic locus: Ccl25 (mouse) mapping to 8 A1.1.

RESEARCH USE

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

PROTOCOLS

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

PRODUCT

TECK 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 TECK shRNA Plasmid (m): sc-39372-SH and TECK shRNA (m) Lentiviral Particles: sc-39372-V as alternate gene silencing products.

For independent verification of TECK (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-39372A, sc-39372B and sc-39372C.

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

TECK siRNA (m) is recommended for the inhibition of TECK 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.

GENE EXPRESSION MONITORING

TECK (YY05): sc-80344 is recommended as a control antibody for monitoring of TECK gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor TECK gene expression knockdown using RT-PCR Primer: TECK (m)-PR: sc-39372-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.