SANTA CRUZ BIOTECHNOLOGY, INC.

CXCL16 siRNA (m): sc-77368

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

CXCL16, also known as SR-PSOX (scavenger receptor for phosphatidylserine and oxidized lipoprotein), binds to CXCR6/Bonzo/STRL33, induces a strong chemotactic response and induces calcium mobilization. CXCL16, an α (CXC) chemokine, also has characteristics of CC chemokines and a structure similar to fractalkine (neurotactin) in having a transmembrane region and a chemokine domain suspended by a mucin-like stalk. Northern blot analysis of mouse and human tissues detect a 2.2 kb CXCL16 transcript in spleen, lymph nodes, Peyer patches, lung, kidney, small intestine and thymus, with weak expression in heart and liver, and no expression in brain and bone marrow. Flow cytometry and Western blot analysis demonstrate expression of a glycosylated cell-surface protein and a cell supernatant soluble protein.

REFERENCES

1. Matloubian, M., et al. 2000. A transmembrane CXC chemokine is a ligand for HIV-coreceptor Bonzo. Nat. Immunol. 1: 298-304.
2. Wilbanks, A., et al. 2001. Expression cloning of the STRL33/Bonzo/TYMSTR ligand reveals elements of CC, CXC, and CX3C chemokines. J. Immunol. 166: 5145-5154.
3. Kume, N. 2002. New oxidized LDL receptors and their functions in atherogenesis. Nippon Ronen Igakkai Zasshi. 39: 264-267.
4. Nakayama, T., et al. 2003. Cutting edge: profile of chemokine receptor expression on human plasma cells accounts for their efficient recruitment to target tissues. J. Immunol. 170: 1136-1140.
5. Yamauchi, R., et al. 2004. Upregulation of SR-PSOX/CXCL16 and recruitment of $CD8^+$ T cells in cardiac valves during inflammatory valvular heart disease. Arterioscler. Thromb. Vasc. Biol. 24: 282-287.
6. Wuttge, D.M., et al. 2004. CXCL16/SR-PSOX is an interferon-γ-regulated chemokine and scavenger receptor expressed in atherosclerotic lesions. Arterioscler. Thromb. Vasc. Biol. 24: 750-755.
7. SWISS-PROT/TrEMBL (Q9H2A7). World Wide Web URL: http://www.expasy.ch/sprot/sprot-top.html

CHROMOSOMAL LOCATION

Genetic locus: Cxcl16 (mouse) mapping to 11 B4.

PRODUCT

CXCL16 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 CXCL16 shRNA Plasmid (m): sc-77368-SH and CXCL16 shRNA (m) Lentiviral Particles: sc-77368-V as alternate gene silencing products.

For independent verification of CXCL16 (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-77368A, sc-77368B and sc-77368C.

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

CXCL16 siRNA (m) is recommended for the inhibition of CXCL16 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 60 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 CXCL16 gene expression knockdown using RT-PCR Primer: CXCL16 (m)-PR: sc-77368-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 or our catalog for detailed protocols and support products.