SANTA CRUZ BIOTECHNOLOGY, INC.

eotaxin-2 siRNA (m): sc-63313

BACKGROUND

Chemokines have been implicated in the regulation of stem/progenitor cell proliferation and movement. The C-C chemokine eotaxin-2 (also known as MPIF-2, CK β-6, or small inducible cytokine A24), which promotes chemotaxis and Ca^{2+} mobilization in human eosinophils, exerts its activity solely through the CCR3 receptor. In addition, eotaxin-2 lacks suppressive activity against immature subsets of myeloid progenitors, which have been stimulated to proliferate by multiple growth factors. While eotaxin-2 is functionally similar to eotaxin, they share only 39% amino acid homology and differ almost completely in the NH_2-terminal region.

REFERENCES

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2. Forssmann, U., et al. 1997. Eotaxin-2, a novel C-C chemokine that is selective for the chemokine receptor CCR3, and acts like eotaxin on human eosinophil and basophil leukocytes. J. Exp. Med. 185: 2171-2176.
3. White, J.R., et al. 1997. Cloning and functional characterization of a novel human C-C chemokine that binds to the CCR3 receptor and activates human eosinophils. J. Leukoc. Biol. 62: 667-675.
4. Elsner, J., et al. 1998. Eotaxin-2 activates chemotaxis-related events and release of reactive oxygen species via pertussis toxin-sensitive G proteins in human eosinophils. Eur. J. Immunol. 28: 2152-2158.
5. Broxmeyer, H.E., et al. 1999. Effects of C-C, C-X-C, C, and CX3C chemokines on proliferation of myeloid progenitor cells, and insights into SDF-1-induced chemotaxis of progenitors. Ann. N.Y. Acad. Sci. 872: 142-162.
6. Kitaura, M., et al. 1999. Molecular cloning of a novel human C-C chemokine (eotaxin-3) that is a functional ligand of CC chemokine receptor 3. J. Biol. Chem. 274: 27975-27980.
7. Ying, S., et al. 1999. C-C chemokines in allergen-induced late-phase cutaneous responses in atopic subjects: association of eotaxin with early 6-hour eosinophils, and of eotaxin-2 and monocyte chemoattractant protein-4 with the later 24-hour tissue eosinophilia, and relationship to basophils and other C-C chemokines (monocyte chemoattractant protein-3 and RANTES). J. Immunol. 163: 3976-3984.
8. Schaefer, D., et al. 2006. Endothelial and epithelial expression of eotaxin-2 (CCL24) in nasal polyps. Int. Arch. Allergy Immunol. 140: 205-214.

CHROMOSOMAL LOCATION

Genetic locus: Ccl24 (mouse) mapping to 5 G2.

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

eotaxin-2 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 eotaxin-2 shRNA Plasmid (m): sc-63313-SH and eotaxin-2 shRNA (m) Lentiviral Particles: sc-63313-V as alternate gene silencing products.

For independent verification of eotaxin-2 (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-63313A, sc-63313B and sc-63313C.

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

eotaxin-2 siRNA (m) is recommended for the inhibition of eotaxin-2 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 eotaxin-2 gene expression knockdown using RT-PCR Primer: eotaxin-2 (m)-PR: sc-63313-PR (20 µl, 442 bp). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.