eotaxin-3 (4i22): sc-71055



The Power to Question

BACKGROUND

Chemokines have been implicated in the regulation of stem/progenitor cell proliferation and movement. C-C chemokines myeloid progenitor inhibitory factor-1 (MPIF)-1 and eotaxin-2 (also known as MPIF-2, CK β -6 or small inducible cytokine A24) both map to chromosome 7q11.23. MPIF-1 has chemotactic activity on dendritic cells derived from either peripheral blood monocytes or cord blood CD34+ progenitors. It is also a potent suppressor of bone marrow low proliferative potential colony-forming cells. Eotaxin-2, which promotes chemotaxis and Ca²+ 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. A related C-C chemokine, eotaxin-3, shares only 33% amino acid identity with eotaxin-2, but shares many characteristics with eotaxin-2. Eotaxin-3 induces migration of eosinophils and basophils at a 10-fold higher concentration than eotaxin-2. The gene which encodes eotaxin-3 maps to human chromosome 7q11.23.

REFERENCES

- White, J.R., Imburgia, C., Dul, E., Appelbaum, E., O'Donnell, K., O'Shannessy, D.J., Brawner, M., Fornwald, J., Adamou, J., Elshourbagy, N.A., Kaiser, K., Foley, J.J., Schmidt, D.B., Johanson, K., Macphee, C., et al. 1997. Cloning and functional characterization of a novel human CC chemokine that binds to the CCR3 receptor and activates human eosinophils. J. Leukoc. Biol. 62: 667-675.
- Patel, V.P., Kreider, B.L., Li, Y., Li, H., Leung, K., Salcedo, T., Nardelli, B., Pippalla, V., Gentz, S., Thotakura, R., Parmelee, D., Gentz, R. and Garotta, G. 1997. Molecular and functional characterization of two novel human C-C chemokines as inhibitors of two distinct classes of myeloid progenitors. J. Exp. Med.185: 1163-1172.
- Broxmeyer, H.E., Kim, C.H., Cooper, S.H., Hangoc, G., Hromas, R. and Pelus, L.M. 1999. Effects of CC, CXC, 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.
- Nardelli, B., Morahan, D.K., Bong, G.W., Semenuk, M.A., Kreider, B.L. and Garotta, G. 1999. Dendritic cells and MPIF-1: chemotactic activity and inhibition of endogenouschemokine production by IFN-γ and CD40 ligation. J. Leukoc. Biol. 65: 822-828.
- Kitaura, M., Suzuki, N., Imai, T., Takagi, S., Suzuki, R., Nakajima, T., Hirai, K., Nomiyama, H. and Yoshie, O. 1999. Molecular cloning of a novel human C-C chemokine (eotaxin-3) that is a functional ligand of C-C chemokine receptor 3. J. Biol. Chem. 274: 27975-27980.
- Guo, R.F., Ward, P.A., Hu, S.M., McDuffie, J.E., Huber-Lang, M. and Shi, M.M. 1999. Molecular cloning and characterization of a novel human C-C chemokine, SCYA26. Genomics 58: 313-317.
- 7. LocusLink Report (LocusID: 604697). http://www.ncbi.nlm.nih.gov/LocusLink

STORAGE

Store at 4° C, **D0 NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

CHROMOSOMAL LOCATION

Genetic locus: CCL26 (human) mapping to 7q11.23.

SOURCE

eotaxin-3 (4i22) is a mouse monoclonal antibody raised against recombinant eotaxin-3 of human origin.

PRODUCT

Each vial contains 100 $\mu g \; lg G_1$ in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

eotaxin-3 (4i22) is recommended for detection of eotaxin-3 of human origin by solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for eotaxin-3 siRNA (h): sc-63312, eotaxin-3 shRNA Plasmid (h): sc-63312-SH and eotaxin-3 shRNA (h) Lentiviral Particles: sc-63312-V.

Molecular Weight of eotaxin-3: 11 kDa.

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.

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