

CKR-8 (N-17): sc-14629

BACKGROUND

C-C or b chemokine family members are characterized by a pair of adjacent cysteine residues and serve as potent chemoattractants and activators of monocytes and T cells. C-C chemokine receptor family members include CKR-1, CKR-2A, CKR-2B, CKR-3, CKR-4, CKR-5, CKR-6, CKR-7, CKR-8, CKR-9, CKR-10 and the Duffy blood group antigen. Each of these receptors are G protein coupled, seven pass transmembrane domain proteins, whose major physiological role is to function in the chemotaxis of T cells and phagocytic cells to areas of inflammation. CKR-8 is expressed on monocytes and type 2 T lymphocytes that are found in lymphoid tissues, such as thymus, spleen and lymph nodes. CKR-8 is a receptor for I-309 and the monocyte inflammatory protein-1 (vMIP-I) and is thought to mediate the activation, migration and proliferation of lymphoid cells. CKR-9, also designated GPR-9-6, is a receptor for the thymus expressed chemokine TECK. CKR-9 and TECK are thought to have a specialized role in the immune response because both are highly expressed by T lymphocytes in the small intestine, while T lymphocytes in several other tissues are CKR-9/TECK negative.

REFERENCES

1. Deng, H., et al. 1996. Identification of a major co-receptor for primary isolates of HIV-1. *Nature* 381: 661-666.
2. Dragic, T., et al. 1996. HIV-1 entry into CD4⁺ cells is mediated by the chemokine receptor C-C-CKR-5. *Nature* 381: 667-673.
3. Feng, Y., et al. 1996. HIV-1 entry co-factor: functional cDNA cloning of a seven-transmembrane, G protein-coupled receptor. *Science* 272: 872-877.
4. Alkhatib, G., et al. 1996. C-C-CKR5: a RANTES, MIP-1, MIP-1 receptor as a fusion cofactor for macrophage-tropic HIV-1. *Science* 272: 1955-1958.
5. Choe, H., et al. 1996. The β -chemokine receptors CCR3 and CCR5 facilitate infection by primary HIV-1 isolates. *Cell* 85: 1135-1148.
6. Bernardini, G., et al. 1998. Identification of the C-C chemokine TARC and macrophage inflammatory protein-1 β as novel functional ligands for the CCR8 receptor. *Eur. J. Immunol.* 28: 582-588.
7. Napolitano, M. and Santoni, A. 1999. Structure and function of the C-C chemokine receptor (CCR) 8. *Forum* 9: 315-324.
8. Kunkel, E.J., et al. 2000. Lymphocyte C-C chemokine receptor 9 and epithelial thymus-expressed chemokine (TECK) expression distinguish the small intestinal immune compartment: Epithelial expression of tissue-specific chemokines as an organizing principle in regional immunity. *J. Exp. Med.* 192: 761-768.
9. Papadakis, K.A., et al. 2000. The role of thymus-expressed chemokine and its receptor CCR9 on lymphocytes in the regional specialization of the mucosal immune system. *J. Immunol.* 165: 5069-5076.

CHROMOSOMAL LOCATION

Genetic locus: CCR8 (human) mapping to 3p22.2; Ccr8 (mouse) mapping to 9 F4.

SOURCE

CKR-8 (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CKR-8 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-14629 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CKR-8 (N-17) is recommended for detection of CKR-8 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

CKR-8 (N-17) is also recommended for detection of CKR-8 in additional species, including porcine.

Suitable for use as control antibody for CKR-8 siRNA (h): sc-39890, CKR-8 siRNA (m): sc-39891, CKR-8 shRNA Plasmid (h): sc-39890-SH, CKR-8 shRNA Plasmid (m): sc-39891-SH, CKR-8 shRNA (h) Lentiviral Particles: sc-39890-V and CKR-8 shRNA (m) Lentiviral Particles: sc-39891-V.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

1. De Paepe, B., et al. 2012. Upregulation of chemokines and their receptors in duchenne muscular dystrophy: potential for attenuation of myofiber necrosis. *Muscle Nerve* 45: 914-916.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

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