

CKR-3 (C-20): sc-6225

BACKGROUND

C-C or β 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. However, this receptor family has also been shown to facilitate viral infection. CKR-3 (C-C chemokine receptor type 3), also known as CCR3 or CMKBR3, is a 355 amino acid multi-pass membrane protein that localizes to the cell membrane and belongs to the C-C chemokine receptor family. Expressed in eosinophils, neutrophils and monocytes, CKR-3 functions as a receptor for a variety of proteins, including MCP-3 and MCP-4, thereby influencing intracellular calcium levels and affecting signal transduction throughout the cell.

REFERENCES

1. Schweickart, V.L., et al. 1994. Cloning of human and mouse EBI1, a lymphoid-specific G protein-coupled receptor encoded on human chromosome 17q12-q21.2. *Genomics* 23: 643-650.
2. Deng, H., et al. 1996. Identification of a major co-receptor for primary isolates of HIV-1. *Nature* 381: 661-666.
3. Dragic, T., et al. 1996. HIV-1 entry into CD4⁺ cells is mediated by the chemokine receptor CC-CKR-5. *Nature* 381: 667-673.
4. 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.
5. Alkhatib, G., et al. 1996. C-C CKR5: a RANTES, MIP-1 α , MIP-1 β receptor as a fusion co-factor for macrophage-tropic HIV-1. *Science* 272: 1955-1958.
6. Choe, H., et al. 1996. The β -chemokine receptors CCR3 and CCR5 facilitate infection by primary HIV-1 isolates. *Cell* 85: 1135-1148.
7. Doranz, B.J., et al. 1996. A dual-tropic primary HIV-1 isolate that uses fusin and the β -chemokine receptors CKR-5, CKR-3, and CKR-2B as fusion co-factors. *Cell* 85: 1149-1158.

CHROMOSOMAL LOCATION

Genetic locus: CCR3 (human) mapping to 3p21.31.

SOURCE

CKR-3 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of CKR-3 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-6225 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CKR-3 (C-20) is recommended for detection of CKR-3 of 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-3 (C-20) is also recommended for detection of CKR-3 in additional species, including bovine.

Suitable for use as control antibody for CKR-3 siRNA (h): sc-39884, CKR-3 shRNA Plasmid (h): sc-39884-SH and CKR-3 shRNA (h) Lentiviral Particles: sc-39884-V.

Molecular Weight of CKR-3: 41 kDa.

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. Trebst, C., et al. 2003. CC chemokine receptor 8 in the central nervous system is associated with phagocytic macrophages. *Am. J. Pathol.* 162: 427-438.
2. Lamkhioed, B., et al. 2003. The CCR3 receptor is involved in eosinophil differentiation and is up-regulated by Th2 cytokines in CD34⁺ progenitor cells. *J. Immunol.* 170: 537-547.
3. De Paep, 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.



Try **CKR-3 (5E8): sc-32777**, our highly recommended monoclonal alternative to CKR-3 (C-20).