

CKR-3 (H-52): sc-7897

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 cofactor: functional cDNA cloning of a seven-transmembrane, G protein-coupled receptor. *Science* 272: 872-877.
5. Alkhatib, G., et al. 1996. CC CKR-5: a RANTES, MIP-1 α , MIP-1 β receptor as a fusion cofactor for macrophage-tropic HIV-1. *Science* 272: 1955-1958.

CHROMOSOMAL LOCATION

Genetic locus: CCR3 (human) mapping to 3p21.31; Ccr3 (mouse) mapping to 9 F4.

SOURCE

CKR-3 (H-52) is a rabbit polyclonal antibody raised against amino acids 156-207 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.

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.

APPLICATIONS

CKR-3 (H-52) is recommended for detection of CKR-3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], 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).

Suitable for use as control antibody for CKR-3 siRNA (h): sc-39884, CKR-3 siRNA (m): sc-39885, CKR-3 shRNA Plasmid (h): sc-39884-SH, CKR-3 shRNA Plasmid (m): sc-39885-SH, CKR-3 shRNA (h) Lentiviral Particles: sc-39884-V and CKR-3 shRNA (m) Lentiviral Particles: sc-39885-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 goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

1. Stellato, C., et al. 2001. Expression of the C-C chemokine receptor CCR-3 in human airway epithelial cell. *J. Immunol.* 166: 1457-1461.
2. Elliott, M.B., et al. 2004. Inhibition of respiratory syncytial virus infection with the C-C chemokine RANTES (CCL5). *J. Med. Virol.* 73: 300-308.
3. Kodali, R.B., et al. 2004. CCL11 (Eotaxin) induces CCR-3-dependent smooth muscle cell migration. *Arterioscler. Thromb. Vasc. Biol.* 24: 1211-1216.
4. Thirkill, T.L., et al. 2006. Macaque trophoblast migration toward RANTES is inhibited by cigarette smoke-conditioned medium. *Toxicol. Sci.* 91: 557-567.
5. Fortin, M., et al. 2006. Effects of antisense oligodeoxynucleotides targeting CCR3 on the airway response to antigen in rats. *Oligonucleotides* 16: 203-212.
6. 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.

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Try **CKR-3 (5E8): sc-32777**, our highly recommended monoclonal alternative to CKR-3 (H-52).