

CKR-4 (C-20): sc-6126

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 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-4 (C-C chemokine receptor type 4), also known as CCR4 or CMKBR4, is a 360 amino acid multi-pass membrane protein that localizes to the cell membrane and belongs to the C-C chemokine receptor family. Expressed at high levels in peripheral blood leukocytes and thymus tissue, CKR-4 functions as a high affinity receptor for C-C type chemokines and is thought to be involved in hippocampal-neuron survival.

REFERENCES

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- Dragic, T., et al. 1996. HIV-1 entry into CD4⁺ cells is mediated by the chemokine receptor CC-CKR-5. *Nature* 381: 667-673.
- Deng, H., et al. 1996. Identification of a major co-receptor for primary isolates of HIV-1. *Nature* 381: 661-666.
- Feng, Y., et al. 1996. HIV-1 entry cofactor: functional cDNA cloning of a seven-transmembrane, G protein-coupled receptor. *Science* 272: 872-877.
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CHROMOSOMAL LOCATION

Genetic locus: CCR4 (human) mapping to 3p22.3.

SOURCE

CKR-4 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of CKR-4 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-6126 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4^o 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-4 (C-20) is recommended for detection of CKR-4 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-4 (C-20) is also recommended for detection of CKR-4 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for CKR-4 siRNA (h): sc-39886, CKR-4 shRNA Plasmid (h): sc-39886-SH and CKR-4 shRNA (h) Lentiviral Particles: sc-39886-V.

Molecular Weight of CKR-4: 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

- Durig, J., et al. 1998. Expression of macrophage inflammatory protein-1 receptors in human CD34⁺ hematopoietic cells and their modulation by tumor necrosis factor- α and interferon- γ . *Blood* 92: 3073-3081.
- Panina-Bordignon, P., et al. 2001. The C-C chemokine receptors CCR4 and CCR8 identify airway T cells of allergen-challenged atopic asthmatics. *J. Clin. Invest.* 107: 1357-1364.
- Lichterfeld, M., et al. 2002. Reduced CC chemokine receptor (CCR) 1 and CCR5 surface expression on peripheral blood T lymphocytes from patients with chronic hepatitis C infection. *J. Infect. Dis.* 185: 1803-1807.
- Elliott, M.B., et al. 2004. Inhibition of respiratory syncytial virus infection with the CC chemokine RANTES (CCL5). *J. Med. Virol.* 73: 300-308.
- Vestergaard, C., et al. 2004. TARC augments TNF α -induced CTACK production in keratinocytes. *Exp. Dermatol.* 13: 551-557.
- Gunther, C., et al. 2005. CCL18 is expressed in atopic dermatitis and mediates skin homing of human memory T cells. *J. Immunol.* 174: 1723-1728.


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Try **CKR-4 (G-2): sc-377357**, our highly recommended monoclonal alternative to CKR-4 (C-20).