

# CKR-2A (C-17): sc-6227

## BACKGROUND

C-C or  $\beta$  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-2 (C-C chemokine receptor type 2) is a 374 amino acid multi-pass membrane protein that belongs to the C-C chemokine receptor family and is expressed as 2 isoforms, designated CKR-2A and CKR-2B. Both CKR-2 isoforms function as receptors for a variety of proteins, including MCP-1 and MCP-3, thereby influencing intracellular calcium levels and affecting signal transduction throughout the cell.

## REFERENCES

- 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.
- Deng, H., et al. 1996. Identification of a major co-receptor for primary isolates of HIV-1. *Nature* 381: 661-666.
- Dragic, T., et al. 1996. HIV-1 entry into CD4<sup>+</sup> cells is mediated by the chemokine receptor C-C CKR-5. *Nature* 381: 667-673.
- Alkhatib, G., et al. 1996. C-C CKR-5: a RANTES, MIP-1 $\alpha$ , MIP-1 $\beta$  receptor as a fusion co-factor for macrophage-tropic HIV-1. *Science* 272: 1955-1958.
- Choe, H., et al. 1996. The  $\beta$ -chemokine receptors CCR-3 and CCR-5 facilitate infection by primary HIV-1 isolates. *Cell* 85: 1135-1148.

## CHROMOSOMAL LOCATION

Genetic locus: CCR2 (human) mapping to 3p21.31.

## SOURCE

CKR-2A (C-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of CKR-2A of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-6227 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

Store at 4 $^{\circ}$  C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

CKR-2A (C-17) is recommended for detection of CKR-2A of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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-2 siRNA (h): sc-270220, CKR-2 shRNA Plasmid (h): sc-270220-SH and CKR-2 shRNA (h) Lentiviral Particles: sc-270220-V.

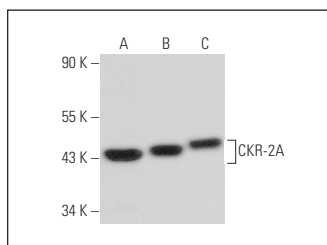
Molecular Weight of CKR-2A: 46-52 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, HeLa whole cell lysate: sc-2200 or ACHN whole cell lysate: sc-364365.

## 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



CKR-2A (C-17): sc-6227. Western blot analysis of CKR-2A expression in Hep G2 (A), HeLa (B) and ACHN (C) whole cell lysates.

## SELECT PRODUCT CITATIONS

- Daugherty, A., et al. 2010. Angiotensin II infusion promotes ascending aortic aneurysms: attenuation by CCR2 deficiency in apoE<sup>-/-</sup> mice. *Clin. Sci.* 118: 681-689.
- 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.

## RESEARCH USE

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