## SANTA CRUZ BIOTECHNOLOGY, INC.

# CKR-7 (H-60): sc-25776



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-7 (C-C chemokine receptor type 7), also known as CCR7, CMKBR7, EBI1 or EVI1, is a 378 amino acid multi-pass membrane protein that belongs to the CC-chemokine receptor family. Expressed in activated B- and T-lymphocytes, as well as in various lymphoid tissues, CKR-7 functions as a receptor for MIP-3 $\beta$  and is thought to be involved in mediating normal lymphocyte function.

## REFERENCES

- Schweickart, V.L., Raport, C.J., Godiska, R., Byers, M.G., Eddy, R.L. Jr, Shows, T.B. and Gray, P.W. 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., Liu, R., Ellmeier, W., Choe, S., Unutmaz, D., Burkhart, M., Di Marzio, P., Marmon, S., Sutton, R.E. and Hill, C.M. 1996. Identification of a major co-receptor for primary isolates of HIV-1. Nature 381: 661-666.
- Dragic, T., Litwin, V., Allaway, G.P., Martin, S.R., Huang, Y., Nagashima, K.A., Cayanan, C., Maddon, P.J., Koup, R.A. and Moore, J.P. 1996. HIV-1 entry into CD4<sup>+</sup> cells is mediated by the chemokine receptor CC-CKR-5. Nature 381: 667-673.
- Feng, Y., Broder, C.C., Kennedy, P.E. and Berger, E.A. 1996. HIV-1 entry cofactor: functional cDNA cloning of a seven-transmembrane, G proteincoupled receptor. Science 272: 872-877.
- 5. Alkhatib, G., Combadiere, C., Broder, C.C., Feng, Y., Kennedy, P.E., Murphy, P.M. and Berger, E.A. 1996. CC CKR5: a RANTES, MIP-1 $\alpha$ , MIP-1 $\beta$  receptor as a fusion cofactor for macrophage-tropic HIV-1. Science 272: 1955-1958.
- Choe, H., Farzan, M., Sun, Y., Sullivan, N., Rollins, B., Ponath, P.D., Wu, L., Mackay, C.R., LaRosa, G. and Newman, W. 1996. The β-chemokine receptors CCR3 and CCR5 facilitate infection by primary HIV-1 isolates. Cell 85: 1135-1148.
- 7. Doranz, B.J., Rucker, J., Yi, Y., Smyth, R.J., Samson, M., Peiper, S.C., Parmentier, M., Collman, R.G. and Doms, R.W. 1996. A dual-tropic primary HIV-1 isolate that uses fusin and the  $\beta$ -chemokine receptors CKR-5, CKR-3, and CKR-2b as fusion cofactors. Cell 85: 1149-1158.
- Baba, M., Imai, T., Nishimura, M., Kakizaki, M., Takagi, S., Hieshima, K., Nomiyama, H. and Yoshie, O. 1997. Identification of CCR6, the specific receptor for a novel lymphocyte-directed CC chemokine LARC. J. Biol. Chem. 272: 14893-14898.

#### **RESEARCH USE**

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

## SOURCE

CKR-7 (H-60) is a rabbit polyclonal antibody raised against amino acids 171-230 of CKR-7 of human origin.

### PRODUCT

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

## **APPLICATIONS**

CKR-7 (H-60) is recommended for detection of CKR-7 of mouse, rat and 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).

CKR-7 (H-60) is also recommended for detection of CKR-7 in additional species, including equine and porcine.

Suitable for use as control antibody for CKR-7 siRNA (h): sc-39888, CKR-7 siRNA (m): sc-39889, CKR-7 shRNA Plasmid (h): sc-39888-SH, CKR-7 shRNA Plasmid (m): sc-39889-SH, CKR-7 shRNA (h) Lentiviral Particles: sc-39888-V and CKR-7 shRNA (m) Lentiviral Particles: sc-39889-V.

Molecular Weight of CKR-7: 43 kDa.

Positive Controls: Ramos cell lysate: sc-2216.

#### **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<sup>™</sup> compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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<sup>™</sup> Mounting Medium: sc-24941.

#### **STORAGE**

Store at 4° 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 or our catalog for detailed protocols and support products.

MONOS Satisfation Guaranteed

Try **CKR-7 (4B12): sc-57074**, our highly recommended monoclonal alternative to CKR-7 (H-60).