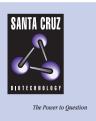
## SANTA CRUZ BIOTECHNOLOGY, INC.

# CKR-5 (HEK/1/85a): sc-57071



## 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 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. Termed a "co-receptor", CKR-5, along with CD4, has been shown to be a major receptor for HIV. CKR-5 tends to associate with macrophage tropic viruses, such as macrophage tropic HIV-1, while CKR-2B and CKR-3 bind a minority of viruses.

## 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., Hill, C.M., Davis, C.B., Peiper, S.C., Schall, T.J., Littman, D.R. and Landau, N.R. 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., Moore, J.P. and Paxton, W.A. 1996. HIV-1 entry into CD4<sup>+</sup> cells is mediated by the chemokine receptor CC-CKR-5. Nature 381: 667-673.
- 4. 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 protein-coupled receptor. Science 272: 872-877.
- Alkhatib, G., Combadiere, C., Broder, C.C., Feng, Y., Kennedy, P.E., Murphy, P.M. and Berger, E.A. 1996. CC-CKR-5: a RANTES, MIP-1α, MIP-1β receptor as a fusion cofactor for macrophage tropic HIV-1. Science 272: 1955-1958.
- 6. Choe, H., Farzan, M., Sun, Y., Sullivan, N., Rollins, B., Ponath, P.D., Wu, L., Mackay, C.R., LaRosa, G., Newman, W., Gerard, N., Gerard, C. and Sodroski, J. 1996. The  $\beta$  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.

### CHROMOSOMAL LOCATION

Genetic locus: CCR5 (human) mapping to 3p21.31.

#### **STORAGE**

Store at 4° C, \*\*D0 NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

### SOURCE

CKR-5 (HEK/1/85a) is a rat monoclonal antibody raised against CKR-5 of human origin.

## PRODUCT

Each vial contains 100  $\mu g~lg G_{2a}$  in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Available as phycoerythrin (sc-57071 PE) or fluorescein (sc-57071 FITC) conjugates for flow cytometry, 100 tests.

#### **APPLICATIONS**

CKR-5 (HEK/1/85a) is recommended for detection of CKR-5 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)] and flow cytometry (1  $\mu$ g per 1 x 10<sup>6</sup> cells).

Suitable for use as control antibody for CKR-5 siRNA (h): sc-35062, CKR-5 shRNA Plasmid (h): sc-35062-SH and CKR-5 shRNA (h) Lentiviral Particles: sc-35062-V.

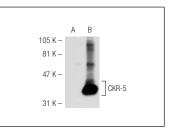
Molecular Weight of CKR-5: 46 kDa.

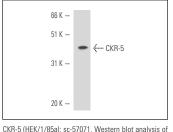
Positive Controls: Jurkat whole cell lysate: sc-2204, U-937 cell lysate: sc-2239 or CKR-5 (h): 293T Lysate: sc-115607.

#### **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rat IgG-HRP: sc-2006 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-rat IgG-HRP: sc-2032 (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).

#### DATA





CKB-5 expression in HuT 78 whole cell lysate

CKR-5 (HEK/1/85a): sc-57071. Western blot analysis of CKR-5 expression in non-transfected: sc-117752 (A) and human CKR-5 transfected: sc-115607 (B) 293T whole cell lysates.

#### **RESEARCH USE**

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