SANTA CRUZ BIOTECHNOLOGY, INC.

CKR-3 (5E8): sc-32777

The Power to Question

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. 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

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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 C-C-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. C-C-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., et al. 1996. The β-chemokine receptors CCR3 and CCR5 facilitate infection by primary HIV-1 isolates. Cell 85: 1135-1148.
7. Doranz, B.J., et al. 1996. A dual-tropic primary HIV-1 isolate that uses fusin and the β-chemokine receptors CKR-5, CKR-3, and CKR-2B as fusion cofactors. Cell 85: 1149-1158.
8. Baba, M., et al. 1997. Identification of CCR6, the specific receptor for a novel lymphocyte-directed CC chemokine LARC. J. Biol. Chem. 272: 14893-14898.

CHROMOSOMAL LOCATION

Genetic locus: CCR3 (human) mapping to 3p21.31.

SOURCE

CKR-3 (5E8) is a mouse monoclonal antibody raised against mouse B cell lymphoma L1.2 transfectants expressing CKR-3 of human origin.

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.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CKR-3 (5E8) is available conjugated to agarose (sc-32777 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-32777 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-32777 PE), fluorescein (sc-32777 FITC), Alexa Fluor® 488 (sc-32777 AF488), Alexa Fluor® 546 (sc-32777 AF546), Alexa Fluor® 594 (sc-32777 AF594) or Alexa Fluor® 647 (sc-32777 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-32777 AF680) or Alexa Fluor® 790 (sc-32777 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

CKR-3 (5E8) is recommended for detection of CKR-3 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and flow cytometry (1 µg per 1 x 10^6 cells).

Suitable for use as control antibody for CKR-3 siRNA (h): sc-39884, CKR-3 shRNA Plasmid (h): sc-39884-SH and CKR-3 shRNA (h) Lentiviral Particles: sc-39884-V.

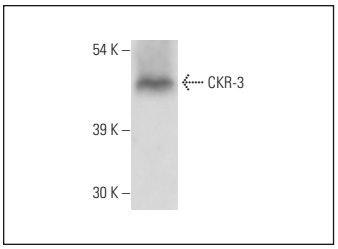
Molecular Weight of CKR-3: 41 kDa.

Positive Controls: human PBL whole cell lysate.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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



CKR-3 (5E8): sc-32777. Western blot analysis of CKR-3 expression in human PBL whole cell lysate.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.