SANTA CRUZ BIOTECHNOLOGY, INC.

CKR-2A (H-61): sc-7935

SANTA CRUZ BIOTECHNOLOGY

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, 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

1. 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.
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 co-factor: 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 co-factor for macrophage-tropic HIV-1. Science 272: 1955-1958.
6. Choe, H., et al. 1996. The β-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 (H-61) is a rabbit polyclonal antibody raised against amino acids 311-371 of CKR-2A of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

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.

APPLICATIONS

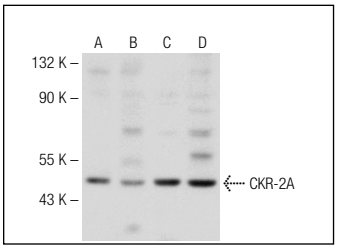
CKR-2A (H-61) is recommended for detection of CKR-2A of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CKR-2A siRNA (h): sc-35061, CKR-2A shRNA Plasmid (h): sc-35061-SH and CKR-2A shRNA (h) Lentiviral Particles: sc-35061-V.

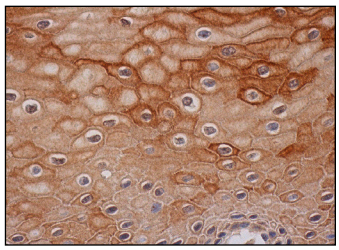
Molecular Weight of CKR-2A: 46-52 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, Hep G2 cell lysate: sc-2227 or A-431 whole cell lysate: sc-2201.

DATA



CKR-2A (H-61): sc-7935. Western blot analysis of CKR-2A expression in Hep G2 (**A**), HEK293 (**B**), A-431 (**C**) and HL-60 (**D**) whole cell lysates.



CKR-2A (H-61): sc-7935. Immunoperoxidase staining of formalin fixed, paraffin-embedded human uterine cervix tissue showing cytoplasmic and membrane staining of squamous epithelial cells.

SELECT PRODUCT CITATIONS

1. Shahrara, S., et al. 2003. Chemokine receptor expression and *in vivo* signaling pathways in the joints of rats with adjuvant-induced arthritis. Arthritis Rheum. 48: 3568-3583.
2. Kodali, R.B., et al. 2004. CCL11 (Eotaxin) induces CCR3-dependent smooth muscle cell migration. Arterioscler. Thromb. Vasc. Biol. 24: 1211-1216.
3. Coates, P.T., et al. 2004. CCR and C-C chemokine expression in relation to Flt3 ligand-induced renal dendritic cell mobilization. Kidney Int. 66: 1907-1917.
4. Liu, S.H., et al. 2005. Increased monocyte chemoattractant protein-1 in knee joints of rats with adjuvant-induced arthritis: *in vivo* microdialysis. J. Rheumatol. 32: 2205-2211.
5. Galkowska, H., et al. 2006. Chemokines, cytokines, and growth factors in keratinocytes and dermal endothelial cells in the margin of chronic diabetic foot ulcers. Wound Repair Regen. 14: 558-565.
6. 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.