SANTA CRUZ BIOTECHNOLOGY, INC.

CKR-1 (C-20): sc-6125

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. These 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-1 (C-C chemokine receptor type 1), also known as CMKBR1, CMKR1, SCYAR1, or HM145, is a 355 amino acid member of the C-C chemokine receptor family and plays an important role in stem cell proliferation. Localized to the cell membrane, CKR-1 is widely expressed and functions as a receptor for proteins such as MIP-1α and MIP-1δ, thereby influencing intracellular calcium levels and affecting signal transduction throughout the cell.

CHROMOSOMAL LOCATION

Genetic locus: CCR1 (human) mapping to 3p21.31; Ccr1 (mouse) mapping to 9 F4.

SOURCE

CKR-1 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of CKR-1 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.

Blocking peptide available for competition studies, sc-6125 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as phycoerythrin (sc-6125 PE), fluorescein (sc-6125 FITC), PerCP (sc-6125 PerCP) or PerCP-Cy5.5 (sc-6125 PCPC5) conjugates for flow cyto-metry, 100 tests; and as Alexa Fluor® 405 (sc-6125 AF405), Alexa Fluor® 488 (sc-6125 AF488) or Alexa Fluor® 647 (sc-6125 AF647) conjugates for flow cytometry or immunofluorescence; 100 µg/2 ml.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

APPLICATIONS

CKR-1 (C-20) is recommended for detection of CKR-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500), flow cytometry (1 µg per 1 x 10^6 cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000). CKR-1 (C-20) is also recommended for detection of CKR-1 in additional species, including equine, canine, bovine and porcine.

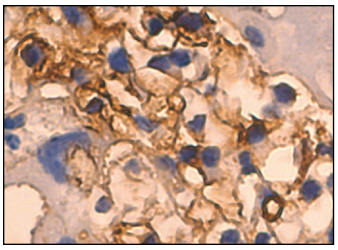
Suitable for use as control antibody for CKR-1 siRNA (h): sc-39880, CKR-1 siRNA (m): sc-39881, CKR-1 shRNA Plasmid (h): sc-39880-SH, CKR-1 shRNA Plasmid (m): sc-39881-SH, CKR-1 shRNA (h) Lentiviral Particles: sc-39880-V and CKR-1 shRNA (m) Lentiviral Particles: sc-39881-V.

Molecular Weight of CKR-1: 41 kDa.

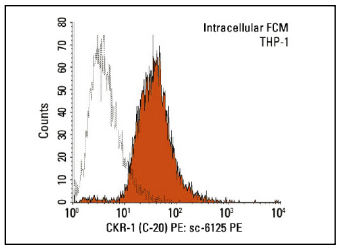
STORAGE

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

DATA



CKR-1 (C-20): sc-6125. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse placenta tissue showing membrane localization.



CKR-1 (C-20) PE: sc-6125 PE. Intracellular FCM analysis of fixed and permeabilized THP-1 cells. Black line histogram represents the isotype control, normal goat IgG: sc-3992.

SELECT PRODUCT CITATIONS

1. Sorensen, T.L., et al. 1999. Expression of specific chemokines and chemokine receptors in the central nervous system of multiple sclerosis patients. J. Clin. Invest. 103: 807-815.
2. Johnston, B., et al. 1999. Chronic inflammation upregulates chemokine receptors and induces neutrophil migration to monocyte chemoattractant protein-1. J. Clin. Invest. 103: 1269-1276.
3. Cowell, R.M., et al. 2006. Microglial expression of chemokine receptor CCR5 during rat forebrain development and after perinatal hypoxia-ischemia. J. Neuroimmunol. 173: 155-165.
4. Ajuebor, M.N., et al. 2007. CCR5 deficiency drives enhanced natural killer cell trafficking to and activation within the liver in murine T cell-mediated hepatitis. Am. J. Pathol. 170: 1975-1988.
5. Liu, Q., et al. 2007. Triptolide impairs dendritic cell migration by inhibiting CCR7 and COX-2 expression through PI3-K/Akt and NFκB pathways. Mol. Immunol. 44: 2686-2696.
6. Sá, V.C., et al. 2007. The pattern of immune cell infiltration in chromoblastomycosis: involvement of macrophage inflammatory protein-1 α/CCL3 and fungi persistence. Rev. Inst. Med. Trop. Sao Paulo 49: 49-53.
7. Narni-Mancinelli, E., et al. 2007. Memory $CD8^+$ T cells mediate antibacterial immunity via CCL3 activation of TNF/ROI^+ phagocytes. J. Exp. Med. 204: 2075-2087.
8. von Luettichau, I., et al. 2008. A complex pattern of chemokine receptor expression is seen in osteosarcoma. BMC Cancer 8: 23.
9. Lu, P., et al. 2008. Essential contribution of CCL3 to Alkali-induced corneal neovascularization by regulating vascular endothelial growth factor production by macrophages. Mol. Vis. 14: 1614-1622.

RESEARCH USE

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