SANTA CRUZ BIOTECHNOLOGY, INC.

CKR-5 (C-20): sc-6128

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. Termed a "coreceptor", 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.

CHROMOSOMAL LOCATION

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

SOURCE

CKR-5 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of CKR-5 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-6128 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CKR-5 (C-20) 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 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).

CKR-5 (C-20) is also recommended for detection of CKR-5 in additional species, including canine, bovine and porcine.

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: U-937 cell lysate: sc-2239, PC-3 cell lysate: sc-2220 or CKR-5 (h): 293T Lysate: sc-115607.

RESEARCH USE

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

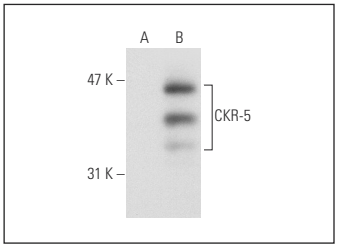
PROTOCOLS

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

STORAGE

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

DATA



CKR-5 (C-20): sc-6128. 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.

SELECT PRODUCT CITATIONS

1. Durig, J., et al. 1998. Expression of macrophage inflammatory protein-1 receptors in human CD34+ hematopoietic cells and their modulation by tumor necrosis factor α and interferon-γ. Blood 92: 3073-3081.
2. Wang, J., et al. 2004. Constitutive association of cell surface CCR5 and CXCR4 in the presence of CD4. J. Cell. Biochem. 93: 753-760.
3. Schweneker, M., et al. 2004. The HIV-1 co-receptor CCR5 binds to α-catenin, a component of the cellular cytoskeleton. Biochem. Biophys. Res. Commun. 325: 751-757.
4. Molon, B., et al. 2005. T cell costimulation by chemokine receptors. Nat. Immunol. 6: 465-471.
5. Schweneker, M., et al. 2005. JM4 is a four-transmembrane protein binding to the CCR5 receptor. FEBS Lett. 579: 1751-1758.
6. Vasilescu, A., et al. 2007. A haplotype of the human CXCR1 gene protective against rapid disease progression in HIV-1+ patients. Proc. Natl. Acad. Sci. USA 104: 3354-3359.
7. Zhang, J., et al. 2007. The second extracellular loop of CCR5 contains the dominant epitopes for highly potent anti-human immunodeficiency virus monoclonal antibodies. Antimicrob. Agents Chemother. 51: 1386-1397.
8. Ren-Ping, Z., et al. 2014. DT-13, a saponin of dwarf lilyturf tuber, exhibits anti-cancer activity by down-regulating C-C chemokine receptor type 5 and vascular endothelial growth factor in MDA-MB-435 cells. Chin. J. Nat. Med. 12: 24-29.