

CXCR-3 (H-7): sc-133121

BACKGROUND

The C-X-C or α chemokine family is characterized by a pair of cysteine residues separated by a single amino acid and primarily functions as chemoattractants for neutrophils. The C-X-C family includes IL-8, NAP-2, MSGA and stromal cell derived factor-1 (SDF-1). SDF-1 was originally described as a pre-B cell stimulatory factor, but has since been shown to function as a potent chemoattractant for T cells and monocytes but not neutrophils. Receptors for the C-X-C family are G protein-coupled, seven pass transmembrane domain proteins which include IL-8RA, IL-8RB, CXCR-3 and fusin (also designated LESTR or CXCR-4). CXCR-3, also known as IP-10/MIG receptor, mediates Ca^{2+} mobilization and chemotaxis in response to the C-X-C chemokines IP-10 and MIG. CXCR-3 is highly expressed in IL-2-activated T lymphocytes, but not in resting T lymphocytes, B lymphocytes, monocytes or granulocytes.

REFERENCES

1. Laterveer, L., et al. 1996. Rapid mobilization of hematopoietic progenitor cells in rhesus monkeys by a single intravenous injection of interleukin-8. *Blood* 87: 781-788.
2. Deng, H., et al. 1996. Identification of a major co-receptor for primary isolates of HIV-1. *Nature* 381: 661-666.
3. Nagasawa, T., et al. 1996. Defects of B-cell lymphopoiesis and bone-marrow myelopoiesis in mice lacking the C-X-C chemokine PBSF/SDF-1. *Nature* 382: 635-638.
4. Ahuja, S.K., et al. 1996. C-X-C chemokines bind to unique sets of selectivity determinants that can function independently and are broadly distributed on multiple domains of human interleukin-8 receptor B. Determinants of high affinity binding and receptor activation are distinct. *J. Biol. Chem.* 271: 225-232.
5. Feng, Y., et al. 1996. HIV-1 entry cofactor: functional cDNA cloning of a seven-transmembrane, G protein-coupled receptor. *Science* 272: 872-877.
6. Bleul, C.C., et al. 1996. The lymphocyte chemoattractant SDF-1 is a ligand for LESTR/fusin and blocks HIV-1 entry. *Nature* 382: 829-833.

CHROMOSOMAL LOCATION

Genetic locus: CXCR3 (human) mapping to Xq13.1; Cxcr3 (mouse) mapping to X D.

SOURCE

CXCR-3 (H-7) is a mouse monoclonal antibody raised against amino acids 1-95 of CXCR-3 of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain 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.

APPLICATIONS

CXCR-3 (H-7) is recommended for detection of CXCR-3 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 CXCR-3 siRNA (h): sc-39902, CXCR-3 shRNA Plasmid (h): sc-39902-SH and CXCR-3 shRNA (h) Lentiviral Particles: sc-39902-V.

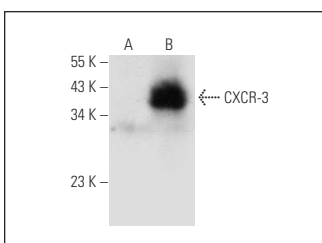
Molecular Weight of CXCR-3: 38 kDa.

Positive Controls: CXCR-3 (h): 293T Lysate: sc-114511, HeLa whole cell lysate: sc-2200 or THP-1 cell lysate: sc-2238.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



CXCR-3 (H-7): sc-133121. Western blot analysis of CXCR-3 expression in non-transfected: sc-117752 (A) and human CXCR-3 transfected: sc-114511 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Rebhun, R.B., et al. 2010. Constitutive expression of the α 4 Integrin correlates with tumorigenicity and lymph node metastasis of the B16 murine melanoma. *Neoplasia* 12: 173-182.
2. Odemis, V., et al. 2012. The presumed atypical chemokine receptor CXCR7 signals through G_{1/0} proteins in primary rodent astrocytes and human glioma cells. *Glia* 60: 372-381.

RESEARCH USE

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