

CXCR-7 (I-13): sc-107515

BACKGROUND

Members of the C-X-C or α chemokine family are characterized by a pair of cysteine residues separated by a single amino acid and primarily function as chemoattractants for neutrophils. The C-X-C family includes IL-8, NAP-2, MSGA and stromal cell derived factor-1 (SDF-1). Receptors for the C-X-C family are G protein-coupled, seven pass transmembrane domain proteins and include proteins such as IL-8RA, IL-8RB, CXCR-3 and fusin (also designated LESTR or CXCR-4). C-X-C chemokine receptor type 7 (CXCR-7), also known as RDC-1, is a 362 amino acid receptor for SDF-1. Initially identified as a receptor for vasoactive intestinal peptide (VIP), it is now considered to be an orphan receptor. CXCR-7, with CSCR-4, also acts as a co-receptor for human immunodeficiency viruses (HIV). Highly expressed in monocytes, B cells and basophils, and highly active in various biological processes, including cell growth, cell adhesion and tumor growth, CXCR-7 may play a role in tumorigenesis.

REFERENCES

- Libert, F., et al. 1991. Chromosomal mapping of A1 and A2 adenosine receptors, VIP receptor, and a new subtype of serotonin receptor. *Genomics* 11: 225-227.
- Nagata, S., et al. 1992. RDC-1 may not be VIP receptor. *Trends Pharmacol. Sci.* 13: 102-103.
- Burns, J.M., et al. 2006. A novel chemokine receptor for SDF-1 and I-TAC involved in cell survival, cell adhesion, and tumor development. *J. Exp. Med.* 203: 2201-2213.
- Infantino, S., et al. 2006. Expression and regulation of the orphan receptor RDC-1 and its putative ligand in human dendritic and B cells. *J. Immunol.* 176: 2197-2207.
- Dambly-Chaudière, C., et al. 2007. Control of cell migration in the development of the posterior lateral line: antagonistic interactions between the chemokine receptors CXCR-4 and CXCR-7/RDC-1. *BMC Dev. Biol.* 7: 23.

CHROMOSOMAL LOCATION

Genetic locus: CXCR7 (human) mapping to 2q37.3; *Cxcr7* (mouse) mapping to 1 D.

SOURCE

CXCR-7 (I-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of CXCR-7 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-107515 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

CXCR-7 (I-13) is recommended for detection of CXCR-7 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

CXCR-7 (I-13) is also recommended for detection of CXCR-7 in additional species, including equine, canine, bovine and porcine.

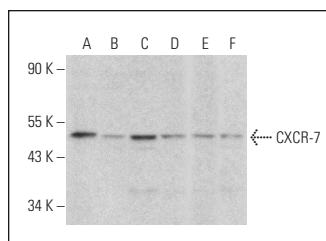
Suitable for use as control antibody for CXCR-7 siRNA (h): sc-94573, CXCR-7 siRNA (m): sc-142643, CXCR-7 shRNA Plasmid (h): sc-94573-SH, CXCR-7 shRNA Plasmid (m): sc-142643-SH, CXCR-7 shRNA (h) Lentiviral Particles: sc-94573-V and CXCR-7 shRNA (m) Lentiviral Particles: sc-142643-V.

Positive Controls: HEK293 whole cell lysate: sc-45136, HL-60 whole cell lysate: sc-2209 or human testis extract: sc-363781.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



CXCR-7 (I-13): sc-107515. Western blot analysis of CXCR-7 expression in Jurkat (A), HL-60 (B), PC-3 (C), U-87 MG (D) and HEK293 (E) whole cell lysates and human testis tissue extract (F).

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.