

CXCR-3 (G-8): sc-137140

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.

CHROMOSOMAL LOCATION

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

SOURCE

CXCR-3 (G-8) is a mouse monoclonal antibody raised against amino acids 1-95 of CXCR-3 of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CXCR-3 (G-8) is available conjugated to agarose (sc-137140 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-137140 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-137140 PE), fluorescein (sc-137140 FITC), Alexa Fluor® 488 (sc-137140 AF488), Alexa Fluor® 546 (sc-137140 AF546), Alexa Fluor® 594 (sc-137140 AF594) or Alexa Fluor® 647 (sc-137140 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-137140 AF680) or Alexa Fluor® 790 (sc-137140 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

CXCR-3 (G-8) is recommended for detection of CXCR-3 of mouse, rat and 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 siRNA (m): sc-39903, CXCR-3 shRNA Plasmid (h): sc-39902-SH, CXCR-3 shRNA Plasmid (m): sc-39903-SH, CXCR-3 shRNA (h) Lentiviral Particles: sc-39902-V and CXCR-3 shRNA (m) Lentiviral Particles: sc-39903-V.

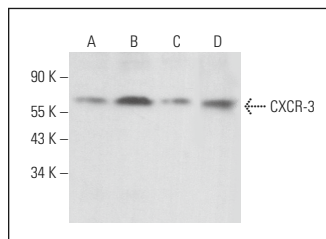
Molecular Weight of CXCR-3: 38 kDa.

Positive Controls: CXCR-3 (h): 293T Lysate: sc-114511, MOLT-4 cell lysate: sc-2233 or HeLa whole cell lysate: sc-2200.

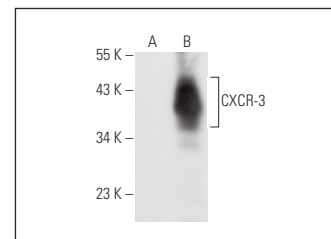
STORAGE

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

DATA



CXCR-3 (G-8): sc-137140. Western blot analysis of CXCR-3 expression in HeLa (A), MOLT-4 (B), K-562 (C) and IB4 (D) whole cell lysates.



CXCR-3 (G-8): sc-137140. 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

- Liu, C., et al. 2015. Paeoniflorin exerts a nephroprotective effect on concanavalin A-induced damage through inhibition of macrophage infiltration. *Diagn. Pathol.* 10: 120.
- Ma, W., et al. 2016. Sorafenib inhibits renal fibrosis induced by unilateral ureteral obstruction via inhibition of macrophage infiltration. *Cell. Physiol. Biochem.* 39: 1837-1849.
- Niu, F., et al. 2021. HIV Tat-mediated induction of monocyte transmigration across the blood-brain barrier: role of chemokine receptor CXCR-3. *Front. Cell Dev. Biol.* 9: 724970.
- Pinto, M.C., et al. 2022. Systems approaches to unravel molecular function: high-content siRNA screen identifies TMEM16A traffic regulators as potential drug targets for cystic fibrosis. *J. Mol. Biol.* 434: 167436.
- Raina, K., et al. 2022. Stage-specific effect of inositol hexaphosphate on cancer stem cell pool during growth and progression of prostate tumorigenesis in TRAMP model. *Cancers* 14: 4204.
- Chen, C., et al. 2023. HDAC inhibitor HPTA initiates anti-tumor response by CXCL9/10-recruited CXCR3⁺CD4⁺T cells against PAHs carcinogenicity. *Food Chem. Toxicol.* 176: 113783.
- Jorfi, M., et al. 2023. Infiltrating CD8⁺ T cells exacerbate Alzheimer's disease pathology in a 3D human neuroimmune axis model. *Nat. Neurosci.* 26: 1489-1504.
- Tao, N., et al. 2024. Th22 is the effector cell of thymosin β 15-induced hair regeneration in mice. *Inflamm. Regen.* 44: 3.

RESEARCH USE

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

PROTOCOLS

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