

ChemR23 (C-7): sc-374570

BACKGROUND

The C-X3-C chemokine family is characterized by two cysteines separated by three amino acid residues. Fractalkine is a member of this chemokine family that binds CX3CR1, previously named V28, and chemokine β receptor-like 1 (CMKBR1) with high affinity, to induce either leukocyte adhesion and migration or chemotactic functions. CX3CR1 functions with CD4 as a co-receptor for the HIV-1 virus envelope protein, and patients homozygous for a variant haplotype of CX3CR1 progress to AIDS more rapidly than those with other haplotypes. Chemokine receptor-like 1 (also designated G protein-coupled receptor DEZ or ChemR23) belongs to the G protein-coupled receptor 1 family. It is an integral membrane protein functioning as a receptor, possibly a chemotactic peptide receptor. It also acts as a co-receptor for various SIV strains and for a primary HIV-1 strain. ChemR23 is highly expressed in developing osseous and cartilaginous tissue, brain, kidney, gastrointestinal tissues and myeloid tissue, as well as in adult parathyroid glands.

REFERENCES

1. Samson, M., et al. 1998. ChemR23, a putative chemoattractant receptor, is expressed in monocyte-derived dendritic cells and macrophages and is a coreceptor for SIV and some primary HIV-1 strains. *Eur. J. Immunol.* 28: 1689-1700.
2. Meder, W., et al. 2003. Characterization of human circulating TIG2 as a ligand for the orphan receptor ChemR23. *FEBS Lett.* 555: 495-499.
3. Hillman, R.T., et al. 2004. An unappreciated role for RNA surveillance. *Genome Biol.* 5: R8.

CHROMOSOMAL LOCATION

Genetic locus: CMKLR1 (human) mapping to 12q23.3; Cmkrl1 (mouse) mapping to 5 F.

SOURCE

ChemR23 (C-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 273-305 within a C-terminal extracellular domain of ChemR23 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.

ChemR23 (C-7) is available conjugated to agarose (sc-374570 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374570 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374570 PE), fluorescein (sc-374570 FITC), Alexa Fluor® 488 (sc-374570 AF488), Alexa Fluor® 546 (sc-374570 AF546), Alexa Fluor® 594 (sc-374570 AF594) or Alexa Fluor® 647 (sc-374570 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-374570 AF680) or Alexa Fluor® 790 (sc-374570 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-374570 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

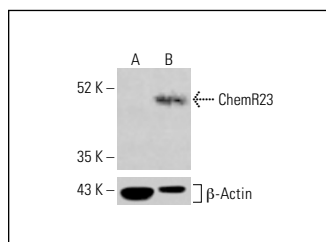
ChemR23 (C-7) is recommended for detection of ChemR23 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 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 ChemR23 siRNA (h): sc-44633, ChemR23 siRNA (m): sc-44634, ChemR23 siRNA (r): sc-270439, ChemR23 shRNA Plasmid (h): sc-44633-SH, ChemR23 shRNA Plasmid (m): sc-44634-SH, ChemR23 shRNA Plasmid (r): sc-270439-SH, ChemR23 shRNA (h) Lentiviral Particles: sc-44633-V, ChemR23 shRNA (m) Lentiviral Particles: sc-44634-V and ChemR23 shRNA (r) Lentiviral Particles: sc-270439-V.

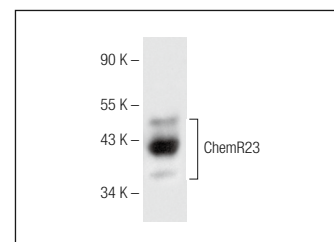
Molecular Weight of ChemR23: 42 kDa.

Positive Controls: JAR cell lysate: sc-2276 or Hep G2 cell lysate: sc-2227.

DATA



ChemR23 (C-7): sc-374570. Western blot analysis of ChemR23 expression in untreated (A) and chemically-treated (B) HeLa whole cell lysates. β -Actin (C4): sc-47778 used as loading control. Detection reagent used: m-IgG Fc BP-HRP: sc-525409.



ChemR23 (C-7): sc-374570. Western blot analysis of ChemR23 expression in JAR whole cell lysate.

SELECT PRODUCT CITATIONS

1. Nakamura, N., et al. 2018. Chemerin promotes angiogenesis *in vivo*. *Physiol. Rep.* 6: e13962.
2. Rennie, K.R., et al. 2020. Chemerin reactivates PTEN and suppresses PD-L1 in tumor cells via modulation of a novel CMKLR1-mediated signaling cascade. *Clin. Cancer Res.* 26: 5019-5035.
3. Ben Dhaou, C., et al. 2022. Chemerin regulates normal angiogenesis and hypoxia-driven neovascularization. *Angiogenesis* 25: 159-179.
4. Kagaya, H., et al. 2024. Dynamic changes in proresolving lipid mediators and their receptors following acute vascular injury in male rats. *Physiol. Rep.* 12: e16178.

STORAGE

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

RESEARCH USE

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