SANTA CRUZ BIOTECHNOLOGY, INC.

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 (CMKBRL1) 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

- 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; Cmklr1 (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 μg 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 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-374570 HRP), 200 µg/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 µg/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 µg/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).

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 JAR whole cell lysate.

ChemR23 expression in Hep G2 whole cell lysate.

SELECT PRODUCT CITATIONS

- 1. Nakamura, N., et al. 2018. Chemerin promotes angiogenesis *in vivo*. Physiol. Rep. 6: e13962.
- Rennier, 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.
- 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.

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