# SANTA CRUZ BIOTECHNOLOGY, INC.

# XCR1 (Y-14): sc-82428



# BACKGROUND

G protein-coupled receptors (GPRs), also known as seven transmembrane receptors, heptahelical receptors or 7TM receptors, comprise a superfamily of proteins that play a role in many different stimulus-response pathways. G protein-coupled receptors translate extracellular signals into intracellular signals (G protein activation) and they respond to a variety of signaling molecules, such as hormones and neurotransmitters. XCR1, also known as GPR5 (G protein-coupled receptor 5) or CCXCR1 (chemokine (C motif) receptor 1), is a 333 amino acid multi-pass membrane protein that belongs to the G protein-coupled receptor 1 family. Functioning as a receptor for select chemokines, XCR1 transduces cellular signals by increasing intracellular calcium ion levels.

#### REFERENCES

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- Heiber, M., et al. 1995. Isolation of three novel human genes encoding G protein-coupled receptors. DNA Cell Biol. 14: 25-35.
- 4. Yoshida, T., et al. 1998. Identification of single C motif-1/lymphotactin receptor XCR1. J. Biol. Chem. 273: 16551-16554.
- 5. Ji, T.H., et al. 1998. G protein-coupled receptors. I. Diversity of receptorligand interactions. J. Biol. Chem. 273: 17299-17302.
- Maho, A., et al. 1999. Mapping of the CCXCR1, CX3CR1, CCBP2 and CCR9 genes to the CCR cluster within the 3p21.3 region of the human genome. Cytogenet. Cell Genet. 87: 265-268.
- Lee, D.K., et al. 2001. Discovery and mapping of ten novel G protein-coupled receptor genes. Gene 275: 83-91.
- Shinkai, H., et al. 2005. Genomic structure of eight porcine chemokine receptors and intergene sharing of an exon between CCR1 and XCR1. Gene 349: 55-66.

## CHROMOSOMAL LOCATION

Genetic locus: XCR1 (human) mapping to 3p21.31; Xcr1 (mouse) mapping to 9 F4.

#### SOURCE

XCR1 (Y-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of XCR1 of mouse origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-82428 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

XCR1 (Y-14) is recommended for detection of XCR1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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 XCR1 siRNA (h): sc-76931, XCR1 siRNA (m): sc-76932, XCR1 shRNA Plasmid (h): sc-76931-SH, XCR1 shRNA Plasmid (m): sc-76932-SH, XCR1 shRNA (h) Lentiviral Particles: sc-76931-V and XCR1 shRNA (m) Lentiviral Particles: sc-76932-V.

Molecular Weight of XCR1: 39 kDa.

Positive Controls: MDA-MB-435S whole cell lysate: sc-364184.

#### **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



XCR1 (Y-14) : sc-82428. Western blot analysis of XCR1 expression in MDA-MB-435S whole cell lysate.

#### **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.

#### PROTOCOLS

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