

## CX3CR1 (H-70): sc-30030

### BACKGROUND

Chemokines are chemoattractant proteins that are divided into subfamilies based upon cysteine signature motifs termed C, CC, CXC and CX3C. Fractalkine, also designated CX3CL1, contains the CX3C motif and is widely expressed in brain and upregulated in endothelial cells in response to inflammatory signals, such as LPS, IL-1, TNF and CD40L. Fractalkine exists both as a membrane-bound form and as a chemotactic soluble form, and binds its cognate receptor, CX3CR1, with high affinity, to induce leukocyte adhesion and migration or chemotactic functions. CX3CR1, previously designated V28 and chemokine  $\beta$  receptor-like 1 (CMKBRL1), is expressed in neutrophils, monocytes, T lymphocytes and several organs including brain. CX3CR1 also 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. CX3CR1 may also be involved in the pathogenesis of atherosclerotic coronary artery disease (CAD) and is considered a potential drug target for therapeutic intervention of endothelium-related inflammatory diseases.

### CHROMOSOMAL LOCATION

Genetic locus: CX3CR1 (human) mapping to 3p22.2; Cx3cr1 (mouse) mapping to 9 F4.

### SOURCE

CX3CR1 (H-70) is a rabbit polyclonal antibody raised against amino acids 131-200 mapping within an internal region of CX3CR1 of human origin.

### PRODUCT

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

### STORAGE

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

### APPLICATIONS

CX3CR1 (H-70) is recommended for detection of CX3CR1 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 CX3CR1 siRNA (h): sc-39904, CX3CR1 siRNA (m): sc-39905, CX3CR1 shRNA Plasmid (h): sc-39904-SH, CX3CR1 shRNA Plasmid (m): sc-39905-SH, CX3CR1 shRNA (h) Lentiviral Particles: sc-39904-V and CX3CR1 shRNA (m) Lentiviral Particles: sc-39905-V.

Molecular Weight (predicted) of CX3CR1 isoforms 1/2/3: 40/44/41 kDa.

Molecular Weight (observed) of CX3CR1L: 40-50 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211, THP-1 cell lysate: sc-2238 or J774.A1 cell lysate: sc-3802.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker<sup>™</sup> compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-24941.

### SELECT PRODUCT CITATIONS

1. Lachance, P.E., et al. 2007. Gene profiling of pooled single neuronal cell bodies from laser capture microdissected vervet monkey lateral geniculate nucleus hybridized to the rhesus macaque genome array. *Brain Res.* 1185: 33-44.
2. Merino, J., et al. 2009. Splanchnic-brain crosstalk mediated by chemokines in portal hypertensive rats. *Int. J. Gastroenterol.* E-published.
3. Tanaka, M., et al. 2012. Phenotypic and functional profiles of CRIg (Z39Ig)-expressing macrophages in the large intestine. *Innate Immun.* 18: 258-267.

### RESEARCH USE

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

### PROTOCOLS

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