

**Datasheet for 600-401-G89****CX3CR1 Antibody****Overview**

|                      |                                             |
|----------------------|---------------------------------------------|
| <b>Description:</b>  | Anti-CX3CR1 (RABBIT) Antibody - 600-401-G89 |
| <b>Item No.:</b>     | 600-401-G89                                 |
| <b>Size:</b>         | 100 µg                                      |
| <b>Applications:</b> | ELISA, FC, IF, IHC, WB                      |
| <b>Reactivity:</b>   | Human, Mouse, Rat                           |
| <b>Host Species:</b> | Rabbit                                      |

**Product Details**

|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Background:</b>   | CX3CR1 is one of the chemokine receptors that are required as coreceptors for HIV infection. The genes encoding human, murine, and rat CX3CR1 were cloned and designated V28 and CMKBRL1, CX3CR1, and RBS11, respectively. The encoded seven transmembrane protein was recently identified as the receptor for a novel transmembrane molecule, fractalkine, and renamed CX3CR1. Recently, CX3CR1 was found to serve as a coreceptor for HIV-1 and HIV-2 envelope fusion and virus infection, which can be inhibited by fractokine. CX3CR1 mediates leukocyte migration and adhesion. CX3CR1 is expressed in a variety of human tissues and cell lines. Anti-CX3CR1 is ideal for investigators involved in cytokines, growth factors and infectious disease research. |
| <b>Synonyms:</b>     | CMKBRL1, GPR13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Host Species:</b> | Rabbit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Clonality:</b>    | Polyclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Format:</b>       | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

**Target Details**

|                        |                    |
|------------------------|--------------------|
| <b>Gene Name:</b>      | CX3CR1             |
| <b>Reactivity:</b>     | Human, Mouse, Rat  |
| <b>Immunogen Type:</b> | Conjugated Peptide |

|                            |                                                                                                                                                                                                                                                                                                                                  |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Immunogen:</b>          | CX3CR1 Antibody was produced from whole rabbit serum prepared by repeated immunizations with a peptide corresponding to an internal region of human CX3CR1. The sequence differs from those of mouse and rat CX3CR1 by four amino acids.                                                                                         |
| <b>Purity/Specificity:</b> | Anti-CX3CR1 Antibody was affinity purified from monospecific antiserum by immunoaffinity purification. A BLAST analysis was used to suggest cross-reactivity with CX3CR1 with Human, Mouse and Rat based on 100% homology with the immunizing sequence. Cross-reactivity with CX3CR1 from other sources has not been determined. |
| <b>Relevant Links:</b>     | <ul style="list-style-type: none"><li>• <a href="#">NCBI - NP_001164642.1</a></li><li>• <a href="#">UniProtKB - P49238</a></li><li>• <a href="#">GeneID - 1524</a></li></ul>                                                                                                                                                     |

## Application Details

|                             |                                                                                                                                                                                                                                                                                                                                                                               |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Tested Applications:</b> | ELISA, FC, IF, IHC, WB                                                                                                                                                                                                                                                                                                                                                        |
| <b>Application Note:</b>    | Anti-CX3CR1 Antibody is tested for use in E, WB, IHC, IF and FACS. Expect a band approximately ~40.3 kDa on specific lysates. Western Blot in human, mouse and rat samples; Immunohistochemistry in rat samples; Immunofluorescence in human, mouse and rat samples; Flow cytometry in human samples. Specific conditions for reactivity should be optimized by the end user. |
| <b>Assay Dilutions:</b>     | All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.                                                                                                                                                                                                                                                                               |
| <b>FC:</b>                  | 0.1µg/mL                                                                                                                                                                                                                                                                                                                                                                      |
| <b>IF:</b>                  | 10-20µg/mL                                                                                                                                                                                                                                                                                                                                                                    |
| <b>IHC:</b>                 | 2µg/mL                                                                                                                                                                                                                                                                                                                                                                        |
| <b>WB:</b>                  | 1:500-2000                                                                                                                                                                                                                                                                                                                                                                    |

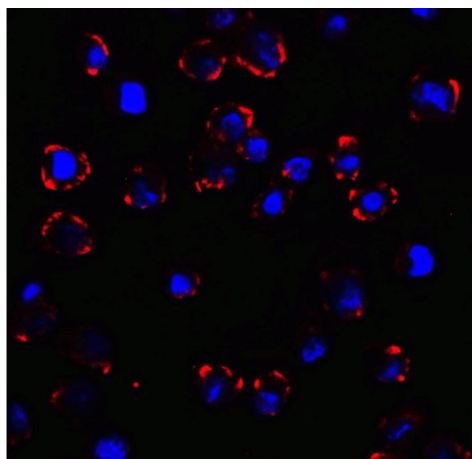
## Formulation

|                        |                                                            |
|------------------------|------------------------------------------------------------|
| <b>Physical State:</b> | Liquid (sterile filtered)                                  |
| <b>Concentration:</b>  | 1.0 mg/mL by UV absorbance at 280 nm                       |
| <b>Buffer:</b>         | 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 |
| <b>Preservative:</b>   | 0.02% (w/v) Sodium Azide                                   |
| <b>Stabilizer:</b>     | None                                                       |

## Shipping & Handling

|                            |                                                                                                                                                                                                                                                                                                                                               |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Shipping Condition:</b> | Dry Ice                                                                                                                                                                                                                                                                                                                                       |
| <b>Storage Condition:</b>  | Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use. |
| <b>Expiration:</b>         | Expiration date is one (1) year from date of receipt.                                                                                                                                                                                                                                                                                         |

## Images



### Immunofluorescence Microscopy

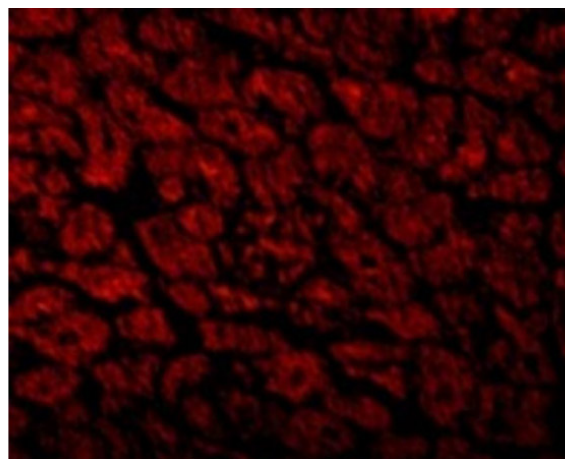
Immunofluorescence Validation of CX3CR1.

Cells: K562 cells.

Fixation: 4% paraformaldehyde-fixed.

Primary Antibody: CX3CR1 at 10 µg/mL.

Secondary: goat anti-rabbit IgG secondary antibody at 1:500 dilution (red) and DAPI staining (blue). Image showing membrane staining on K562 cells.



### Immunofluorescence Microscopy

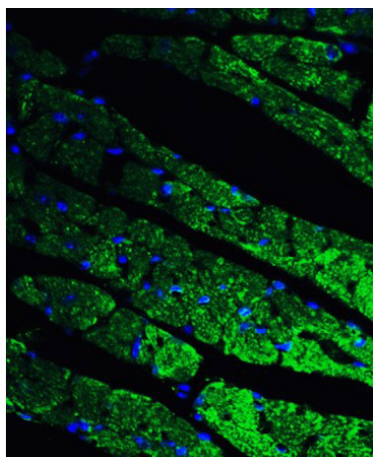
Immunofluorescence Validation of CX3CR1.

Tissue: Human Heart.

Fixation: 4% paraformaldehyde-fixed.

Primary Antibody: CX3CR1 at 10 µg/mL.

Secondary: goat anti-rabbit IgG secondary antibody at 1/500 dilution (red).



#### Immunofluorescence Microscopy

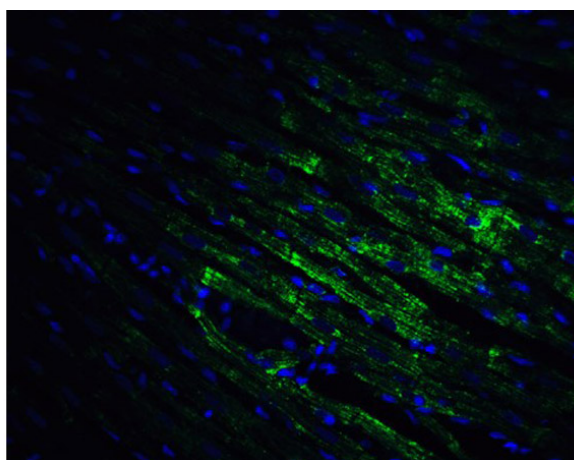
Immunofluorescence Validation of CX3CR1.

Tissue: Mouse Heart Tissue.

Fixation: 4% paraformaldehyde-fixed.

Primary Antibody: CX3CR1 at 20 µg/mL.

Secondary: goat anti-rabbit IgG secondary antibody at 1:500 dilution (green) and DAPI staining (blue).



#### Immunofluorescence Microscopy

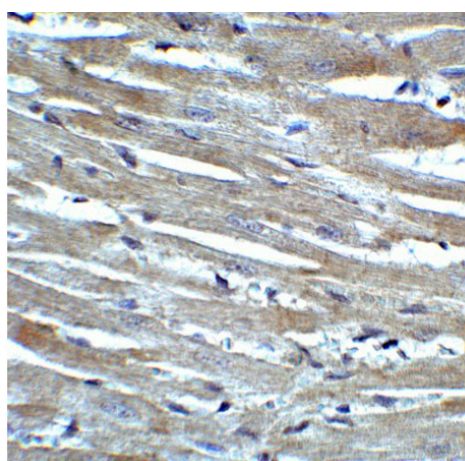
Immunofluorescence Validation of CX3CR1.

Tissue: Rat Heart Tissue.

Fixation: 4% paraformaldehyde-fixed.

Primary Antibody: CX3CR1 at 20 µg/mL.

Secondary: goat anti-rabbit IgG secondary antibody at 1:500 dilution (green) and DAPI staining (blue).



#### Immunohistochemistry

Immunohistochemistry Validation of CX3CR1.

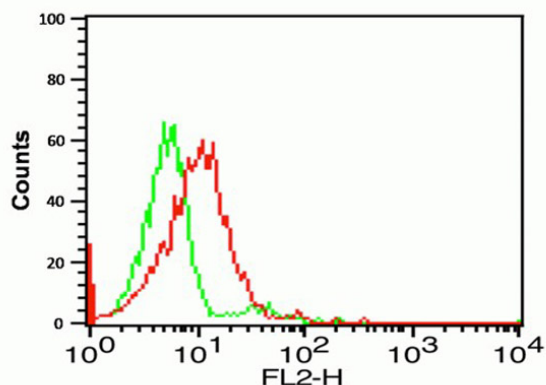
Tissue: Rat Heart Tissue.

Fixation: paraffin-embedded, fixed with formaldehyde and blocked with 10% serum for 1 h at RT.

Antigen retrieval: heat mediation with a citrate buffer (pH6).

Primary Antibody: anti-CX3CR1 antibody at 2 µg/ml overnight at 4°C.

Secondary: goat anti-rabbit IgG H&L (HRP) at 1:250. Counter stained with Hematoxylin.



### Flow Cytometry

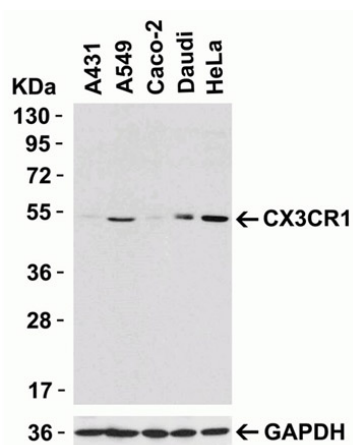
Flow Cytometry Validation of CX3CR1.

Cells: THP-1 Cells.

Overlay histogram showing THP-1 cells stained with Anti-CX3CR1 at  $1\mu\text{g}/1 \times 10^6$  cells (red line) for 1h at  $4^\circ\text{C}$  in 2% FBS/PBS.

Followed by secondary antibody 488 goat anti-rabbit IgG (H +L) at 1:500 dilution for 1h at  $4^\circ\text{C}$ .

Isotype control rabbit IgG1 antibody at  $1\mu\text{g}/1 \times 10^6$  cells (green line) used under the same conditions. Acquisition of  $>10,000$  events was performed.



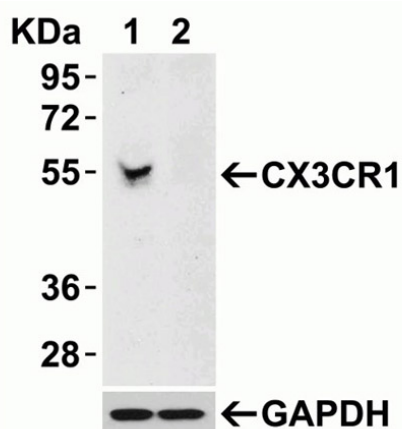
### Western Blot

Western Blot Validation of Anti-CX3CR1.

Loading:  $15\mu\text{g}$  of human lysates per lane. Lane 1: A431, Lane 2: A549, Lane 3: Caco-2, Lane 4: Daudi, Lane 5: HeLa.

Primary Antibody: Anti-CX3CR1 at  $0.5\mu\text{g}/\text{mL}$  for 1h at RT in 5% NFDN/TBST.

Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



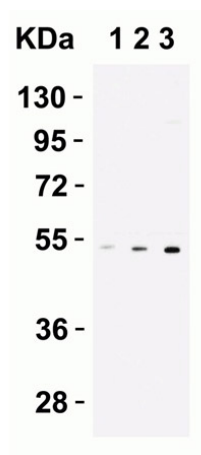
### Western Blot

KD Validation Western Blot of CX3CR1.

Loading:  $15\mu\text{g}$  of lysates per lane. Lane 1: 293 cells transfected with control siRNAs. Lane 2: 293 cells transfected with CX3CR1 siRNAs.

Primary Antibody: Anti-CX3CR1 at  $0.5\mu\text{g}/\text{mL}$  for 1h at RT in 5% NFDN/TBST.

Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



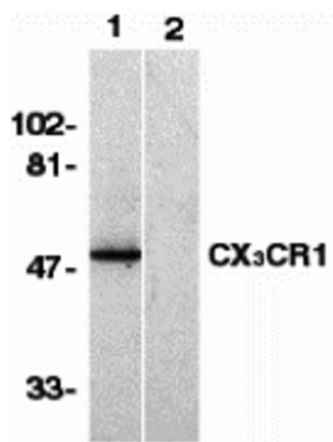
#### Western Blot

Western Blot Validation of Anti-CX3CR1.

Loading: 15 µg of THP1 cell lysates per lane.

Primary Antibody: Anti-CX3CR1 at (Lane 1: 0.2 µg/mL Lane 2: 0.5 µg/mL Lane 3: 1 µg/mL) for 1h at RT in 5% NFDm/TBST.

Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



#### Western Blot

Western Blot Validation of Anti-CX3CR1.

Loading: 15 µg of Human Spleen lysates per lane.

Primary Antibody: Anti-CX3CR1 at 1µg/mL in the absence (lane 1) or presence of blocking peptide (lane 2) for 1h at RT in 5% NFDm/TBST.

Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.

## Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.