Datasheet for 200-401-AR5

# CXCR4-Lo Antibody

## Overview

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| **Description:** | Anti-CXCR4-Lo (RABBIT) Antibody - 200-401-AR5 |
| **Item No.:** | 200-401-AR5 |
| **Size:** | 100 µg |
| **Applications:** | ELISA, IF, IHC, WB |
| **Reactivity:** | Human |
| **Host Species:** | Rabbit |

## Product Details

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| **Background:** | Human immunodeficiency virus (HIV) and related viruses require coreceptors, in addition to CD4, to infect target cells. Some G protein-coupled receptors including CCR5, CXCR4, CCR3, CCR2b and CCR8 in the chemokine receptor family, and four new human molecules GPR15, STRL33, GPR1 and V28 were recently identified as HIV coreceptors. Among them, CXCR4 is a principal coreceptor for T-cell tropic strains of HIV-1 fusion and entry of human white blood cells. CXCR4 is also required for the infection by dual-tropic strains of HIV-1 and mediates CD-4 independent infection by HIV-2. The alpha-chemokine SDF-1 is the ligand for CXCR4 and prevents infection by T-tropic HIV-1. CXCR4 associates with the surface CD4-gp120 complex before HIV enters target cells. CXCR4 messenger RNA levels correlated with HIV-1 permissiveness in diverse human cell types. Antibodies to CXCR4 block HIV-1 and HIV-2 fusion and infection of human target cells. The amino-terminal domain and the second extracellular loop of CXCR4 serve as HIV binding sites. |
| **Synonyms:** | CXCR4-Lo Antibody, FB22, HM89, LAP3, LCR1, NPYR, WHIM, CD184, LESTR, NPY3R, NPYRL, HSY3RR, NPYY3R, D2S201E, C-X-C chemokine receptor type 4, FB22, CXC-R4 |
| **Host Species:** | Rabbit |
| **Clonality:** | Polyclonal |
| **Format:** | IgG |

## Target Details

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| **Gene Name:** | CXCR4 |
| **Reactivity:** | Human |

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| **Immunogen Type:** | Conjugated Peptide |
| **Immunogen:** | Anti-CXCR4-Lo antibody was prepared from whole rabbit serum produced by repeated immunizations with a peptide corresponding to nine amino acids near the N-terminus of human CXCR4 isoform a. |
| **Purity/Specificity:** | Anti-CXCR4-Lo Antibody is affinity chromatography purified via peptide column. This antibody is specific for the longer isoform of CXCR4. |
| **Relevant Links:** | • UniProtKB - P61073<br>• GeneID - 7852<br>• NCBI - NP_001008540 |

## Application Details

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| **Tested Applications:** | ELISA, IF, IHC, WB |
| **Application Note:** | Anti-CXCR4-Lo Antibody has been tested for use in ELISA, Western Blotting, Immunocytochemistry, and Immunofluorescence. Specific conditions for reactivity should be optimized by the end user. Expect a band at approximately 40 kDa in Western Blots of specific cell lysates and tissues. |
| **Assay Dilutions:** | All assays should be optimized by the user. Recommended dilutions (if any) may be listed below. |
| **ELISA:** | 1:100,000 |
| **IF:** | 4 µg/mL |
| **WB:** | 10 µg/mL |

## Formulation

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| **Physical State:** | Liquid (sterile filtered) |
| **Concentration:** | 1 mg/mL by UV absorbance at 280 nm |
| **Buffer:** | 0.01 M Sodium Phosphate, 0.25 M Sodium Chloride, pH 7.2 |
| **Preservative:** | 0.02% (w/v) Sodium Azide |
| **Stabilizer:** | None |

## Shipping & Handling

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| **Shipping Condition:** | Dry Ice |

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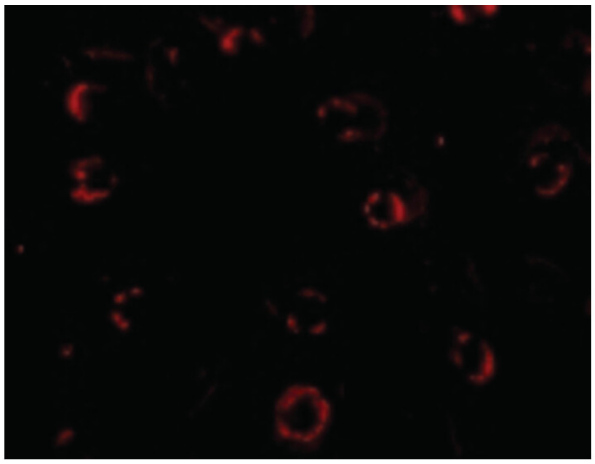
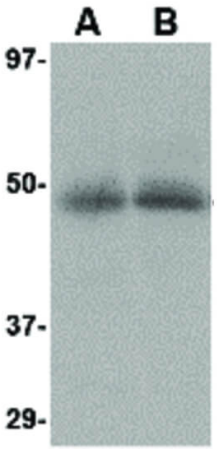
| **Storage Condition:** | Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C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

## Images



**Immunofluorescence Microscopy**
Immunofluorescence Microscopy of CXCR4-Lo antibody. Tissue: HeLa cells. Fixation: 0.5% PFA. Antigen retrieval: not required. Primary antibody: CXCR4-Lo antibody at 4 µg/mL for 1 h at RT. Secondary antibody: Fluorescein rabbit secondary antibody at 1:10,000 for 45 min at RT. Staining: CXCR4-Lo as a red fluorescent signal.

**Immunohistochemistry**
Immunohistochemistry of CXCR4-Lo antibody. Tissue: HeLa cells. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: CXCR4-Lo antibody at 2 µg/mL for 1 h at RT. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: CXCR4-Lo is nuclear and occasionally cytoplasmic. Staining: CXCR4-Lo as a precipitated red signal with hematoxylin purple nuclear counterstain.




**Western Blot**

Western Blot of CXCR4-Lo antibody. Lane A: Human spleen tissue lysate at 10 µg/mL. Lane B: Human thymus tissue lysate at 10 µg/mL. Load: 35 µg per lane. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: 39.7 kDa, 49 kDa for CXCR4-Lo.

## Disclaimer