

## Recombinant Human CXCR4 protein, Fc-tagged

Cat. No. CXCR4-19H Lot. No. (See product label)

### SPECIFICATION

#### Product Overview

Recombinant Human CXCR4 (Met1-Ser46) protein was fused to human IgG1 Fc tag at N-terminus and expressed in human 293 cells (HEK293).

#### Species

Human

#### Source

HEK293

#### ProteinLength

Met1-Ser46

#### Description

C-X-C chemokine receptor type 4 is also known as fusin or CD184 (cluster of differentiation 184), CXCR4, CD184, D2S201E, FB22, HM89, HSY3RR, LAP3, LCR1, LESTR, NPY3R, NPYR, NPYRL, NPYY3R or WHIM. CXCR-4 is an alpha-chemokine receptor specific for stromal-derived-factor-1 (SDF-1 also called CXCL12), a molecule endowed with potent chemotactic activity for lymphocytes. This receptor is one of several chemokine receptors that HIV isolates can use to infect CD4+ T cells. HIV isolates that use CXCR4 are traditionally known as T-cell tropic isolates. Typically, these viruses are found late in infection. It is unclear as to whether the emergence of CXCR4 using HIV is a consequence or a cause of immunodeficiency. CXCR4 is upregulated during the implantation window in natural and hormone replacement therapy cycles in the endometrium, producing, in presence of a human blastocyst, a surface polarization of the CXCR4 receptors suggesting that this receptor is implicated in the adhesion phase of human implantation. SDF-1 and CXCR4 were believed to be a relatively "monogamous" ligand-receptor pair (other chemokines tend to use several different chemokine receptors in a fairly "promiscuous" manner).

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Recent evidence demonstrates ubiquitin is also a natural ligand of CXCR4. Chronic exposure to THC increased T lymphocyte CXCR4 expression on both CD4+ and CD8+ T lymphocytes. Drugs that block the CXCR4 receptor appear to be capable of "mobilizing" hematopoietic stem cells into the bloodstream as peripheral blood stem cells.

**Predicted N Terminal** Met1

**Form** Lyophilized from 0.22 µm filtered solution in 50 mM Tris, 100 mM Glycine, pH7.5, 10% trehalose.

**Molecular Mass** The protein has a calculated MW of 32.8 kDa. The protein migrates as 40-50 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

**Endotoxin** Less than 1.0 EU per µg by the LAL method.

**Purity** >95% as determined by SDS-PAGE.

**Storage**

For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- 20 to -70 centigrade for 12 months in lyophilized state;
- 70 centigrade for 3 months under sterile conditions after reconstitution.

**Reconstitution** It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 ug/ul. Centrifuge the vial at 4°C before opening to recover the entire contents.

## GENE INFORMATION

**Gene Name** CXCR4

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<b>Official Symbol</b>	<b>CXCR4</b>
<b>Synonyms</b>	CXCR4; chemokine (C-X-C motif) receptor 4; chemokine (C X C motif), receptor 4 (fusin); C-X-C chemokine receptor type 4; CD184; D2S201E; fusin; HM89; HSY3RR; LESTR; NPY3R; NPYR; NPYY3R; CXC-R4; CXCR-4; CD184 antigen; SDF-1 receptor; neuropeptide Y receptor Y3; seven transmembrane helix receptor; stromal cell-derived factor 1 receptor; lipopolysaccharide-associated protein 3; seven-transmembrane-segment receptor, spleen; leukocyte-derived seven transmembrane domain receptor; leukocyte-derived seven-transmembrane-domain receptor; FB22; LAP3; LCR1; WHIM; NPYRL
<b>Gene ID</b>	<b>7852</b>
<b>mRNA Refseq</b>	<b>NM_001008540</b>
<b>Protein Refseq</b>	<b>NP_001008540</b>
<b>MIM</b>	<b>162643</b>
<b>UniProt ID</b>	<b>P61073</b>
<b>SDS-PAGE of CXCR4-19H</b>	


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Human CXCR4, Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

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