

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).

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

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.

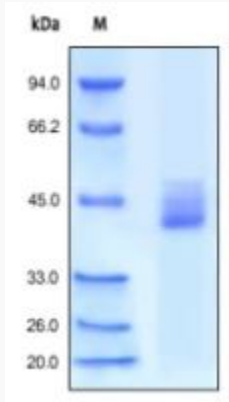
GENE INFORMATION

Gene Name CXCR4

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Official Symbol	CXCR4
Synonyms	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; 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
Gene ID	7852
mRNA Refseq	NM_001008540
Protein Refseq	NP_001008540
MIM	162643
UniProt ID	P61073
SDS-PAGE of CXCR4-19H	



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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