



## Synonym

CXCR4,CD184,Fusin,D2S201E,FB22,HM89,HSY3RR,LAP3,LCR1,LESTR,NPY3R,NPYR,NPYRL,NPYY3R,WHIM

## Source

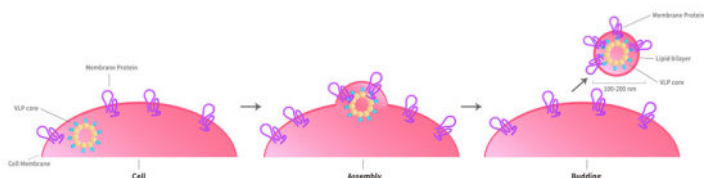
Human CXCR4 Full Length Protein-VLP(CX4-H5219) is expressed from human 293 cells (HEK293). It contains AA Met 1 - Ser 352 (Accession # [P61073-1](#)).

Predicted N-terminus: His

## Molecular Characterization

The protein has a calculated MW of 41.6 kDa | 56.1 kDa.

Virus-like particles(VLPs) are formed by self-assembly of envelop/capsid proteins from viruses. Membrane Proteins can be constituted in-situ with VLPs produced from HEK293 cell cultures. These VLPs concentrate conformationally intact membrane proteins directly on the cell surface and produce soluble, high-concentration proteins perfect for immunization and antibody screening.



The VLPs provide the display of properly folded membrane proteins in their native cellular membrane in a compact size of 100~300 nm diameter (similar to the size of most viruses) making it optimal targets for dendritic cells in vivo and surface attachment for phage display.

## Endotoxin

Less than 1.0 EU per µg by the LAL method.

\*The isotype control of empty/mock VLP (Cat. No. [VLP-N5213](#)) is sold separately and not included in protein, you can follow [this link](#) for product information.

## Formulation

*The VLPs are highly immunogenic, so the immunization strategy should be optimized (antigen dose, regimen and adjuvant).*

Supplied as 0.2 µm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

## Shipping

*This product is supplied and shipped with dry ice, please inquire the shipping cost.*

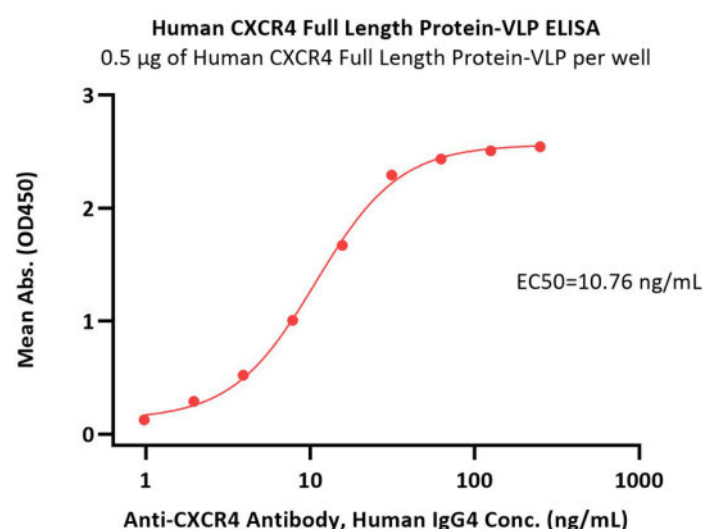
## Storage

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

- The product MUST be stored at -70°C or lower upon receipt;
- -70°C for 12 months under sterile conditions.

## Bioactivity-ELISA



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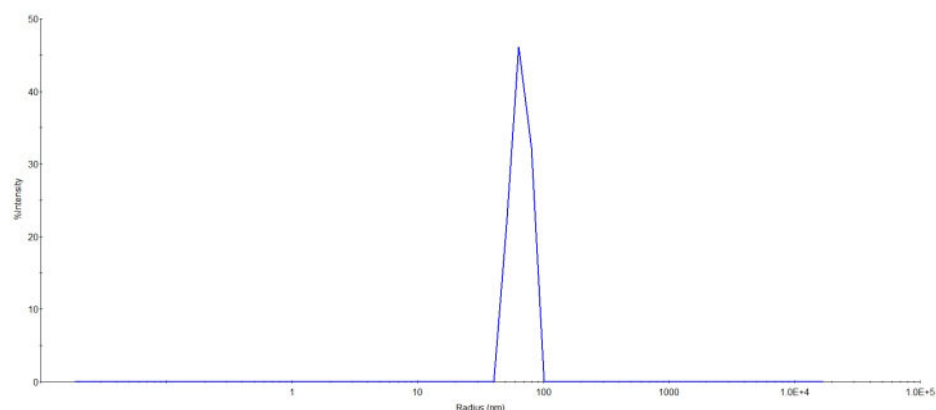
# Human CXCR4 / CD184 Full Length Protein (VLP)

Catalog # CX4-H5219



Immobilized Human CXCR4 Full Length Protein-VLP (Cat. No. CX4-H5219) at 5 µg/mL (100 µL/well) can bind Human ulocuplumab, Human IgG4 with a linear range of 1-31 ng/mL (QC tested).

## Identity-DLS



The mean peak Radius of VLP is 55-75 nm with more than 95% intensity as determined by dynamic light scattering (DLS).

## Background

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). 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.

## Clinical and Translational Updates

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