

**PRODUCT INFORMATION**

<b>Tag</b>	C-Flag Tag
<b>Target</b>	CXCR4
<b>Synonyms</b>	CD184; D2S201E; FB22; HM89; HSY3RR; LAP-3; LAP3; LCR1; LESTR; NPY3R; NPYR; NPYRL; NPY3R; WHIM; WHIMS
<b>Description</b>	Human CXCR4 full length protein-synthetic nanodisc
<b>Delivery</b>	In Stock
<b>Uniprot ID</b>	P61073
<b>Expression Host</b>	HEK293
<b>Protein Families</b>	Druggable Genome, ES Cell Differentiation/IPS, GPCR, Transmembrane
<b>Protein Pathways</b>	Axon guidance, Chemokine signaling pathway, Cytokine-cytokine receptor interaction, Endocytosis, Leukocyte transendothelial migration
<b>Molecular Weight</b>	The human full length CXCR4 protein has a MW of 39.7 kDa
<b>Formulation &amp; Reconstitution</b>	Lyophilized from nanodisc solubilization buffer (20 mM Tris-HCl, 150 mM NaCl, pH 8.0). Normally 5% - 8% trehalose is added as protectants before lyophilization. Please see Certificate of Analysis for specific instructions. Do not use solvents with a pH below 6.5 or those containing high concentrations of divalent metal ions (greater than 5 mM) in subsequent experiments.
<b>Storage&amp;Shipping</b>	Store at -20°C to -80°C for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at -80°C (Avoid repeated freezing and thawing). Lyophilized proteins are shipped at ambient temperature.
<b>Background</b>	A CXC chemokine receptor specific for stromal cell-derived factor-1. The protein has 7 transmembrane regions and is located on the cell surface. It acts with the CD4 protein to support HIV entry into cells and is also highly expressed in breast cancer cells. Mutations in this gene have been associated with WHIM (warts, hypogammaglobulinemia, infections, and myelokathexis) syndrome.
<b>Usage</b>	Research use only
<b>Conjugate</b>	Unconjugated



### ELISA assay to evaluate CXCR4-Nanodisc 0.2 $\mu$ g Human CXCR4-Nanodisc per well

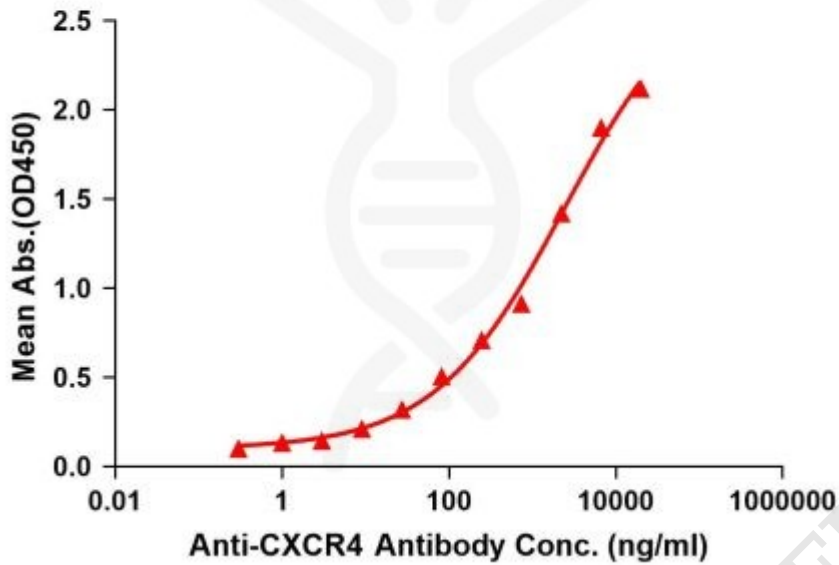


Figure1. Elisa plates were pre-coated with Flag Tag CXCR4-Nanodisc (0.2 $\mu$ g/per well). Serial diluted anti-CXCR4 monoclonal antibody (BME100101) solutions were added, washed, and incubated with secondary antibody before Elisa reading. From above data, the EC50 for anti-CXCR4 monoclonal antibody binding with CXCR4-Nanodisc is 2442ng/ml.



Figure2. Human CXCR4-Nanodisc, Flag Tag on SDS-PAGE



## Cited in Literature

Muratspahić, E., Feldman, D., Kim, D. E., Qu, X., Bratovianu, A. M., Rivera-Sánchez, P., Dimitri, F., Cao, J., Cary, B. P., Belousoff, M. J., Keov, P., Chen, Q., Ren, Y., Fine, J., Sappington, I., Schlichthaerle, T., Zhang, J. Z., Pillai, A., Mihaljević, L., Bauer, M., ... Baker, D. (2025). De novo design of miniprotein agonists and antagonists targeting G protein-coupled receptors. *bioRxiv : the preprint server for biology*, 2025.03.23.644666. <https://doi.org/10.1101/2025.03.23.644666> [\(PubMed\)](#)

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