

PRODUCT INFORMATION

Tag	C-Flag Tag
Expression Host	HEK293
Target	CXCR4
Synonyms	CD184; D2S201E; FB22; HM89; HSY3RR; LAP-3; LAP3; LCR1; LESTR; NPY3R; NPYR; NPYRL; NPY3R; WHIM; WHIMS
Description	Human CXCR4 full length protein-synthetic nanodisc
Uniprot ID	P61073
Protein Families	Druggable Genome, ES Cell Differentiation/IPS, GPCR, Transmembrane
Protein Pathways	Axon guidance, Chemokine signaling pathway, Cytokine-cytokine receptor interaction, Endocytosis, Leukocyte transendothelial migration
Molecular Weight	The human full length CXCR4 protein has a MW of 39.7 kDa
Delivery	In Stock
Formulation & Reconstitution	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.
Sterility	Products are supplied non-sterile. For cell culture applications, dilute in appropriate medium and sterile-filter (0.22 µm) prior to use.
Storage&Shipping	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.
Background	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.
Usage	Research use only
Conjugate	Unconjugated



ELISA assay to evaluate CXCR4-Nanodisc 0.2µg Human CXCR4-Nanodisc per well

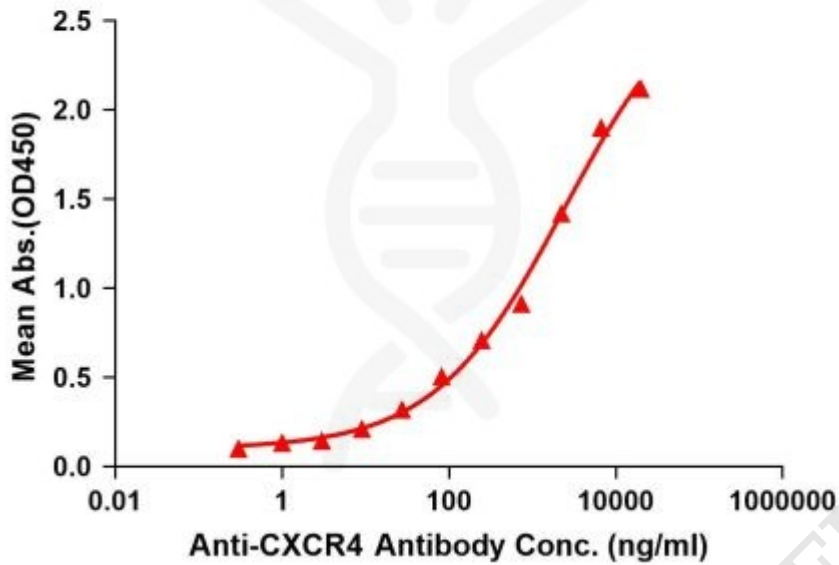


Figure1. Elisa plates were pre-coated with Flag Tag CXCR4-Nanodisc (0.2µg/per well). Serial diluted anti-CXCR4 monoclonal antibody (BME100101) solutions were added, washed, and incubated with secondary antibody before Elisa reading. From above data, the EC50 for anti-CXCR4 monoclonal antibody binding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