Datasheet for ABIN7538185

CCR4 Protein

2 Images

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Overview

Quantity:	50 µg
Target:	CCR4
Origin:	Human
Source:	Mammalian Cells
Protein Type:	MSP Nanodisc

Product Details

Purpose:	Human CCR4 full length protein membrane nanoparticles (MNPs)
Characteristics:	Plasma membrane-coated nanoparticles (MNPs) have been used in various applications, including delivery of therapeutic agents and induction of immune responses et al. Unlike the conventional strategies, MNPs directly leverage intact and natural functions of cell membranes, and show high biocompatibility, specificity, and low side effects. Our optimized MNPs platform for the full-length membrane protein production uses membrane coating technology and a HEK293 based expression platform. The high-purity plasma membrane-coated nanoparticles were produced by extrusion after membrane extraction from the host HEK293 cells containing the overexpressed target proteins.

Target Details

Target:	CCR4
Alternative Name:	CCR4 (CCR4 Products)
Background:	The protein belongs to the G-protein-coupled receptor family . It is a receptor for the CC chemokine - MIP-1, RANTES, TARC and MCP-1. Chemokines are a group of small polypeptide,

Target Details

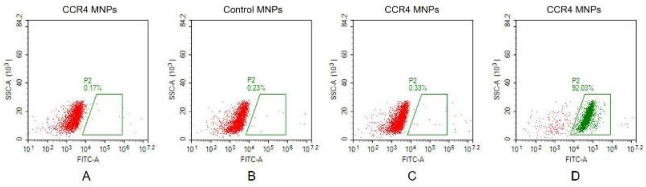
	structurally related molecules that regulate cell trafficking of various types of leukocytes. The chemokines also play fundamental roles in the development, homeostasis, and function of the immune system, and they have effects on cells of the central nervous system as well as on endothelial cells involved in angiogenesis or angiostasis.
Molecular Weight:	The human full length CCR4 Protein has a MW of 41.4 kDa
UniProt:	P51679

Application Details

Comment:	Advantages of Membrane Nanoparticles (MNPs): • High display density of target membrane proteins • Native structure and orientation of transmembrane protein • soluble in aqueous solutions for routine biochemical analysis • Detergent-free purification process • Strong immunogenicity • Works for MPs that can´t be produced via VLPs and EXos Limitations of Membrane Nanoparticles (MNPs): • Lack of accurate quantification of the target membrane proteins. • Need to develop special SPR assayx. • Cell membranes contain housekeeping proteins that can result in immune response dilution. • Some membrane proteins can´t be enriched on membrane.
Restrictions:	For Research Use only

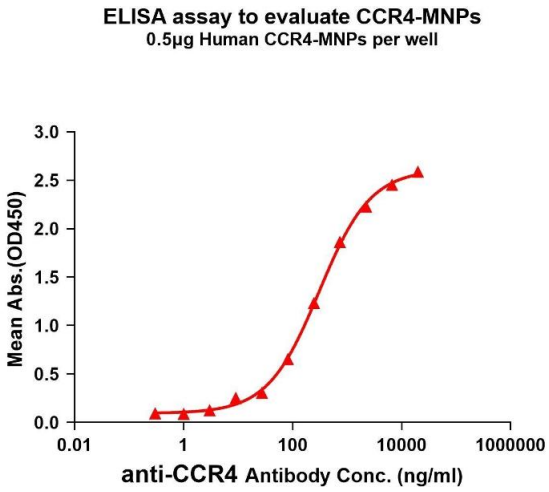
Handling

Format:	Lyophilized
Buffer:	Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8 % trehalose is added as protectants before lyophilization.
Storage:	-20 °C,-80 °C
Storage Comment:	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.
Expiry Date:	12 months



Flow Cytometry

Image 1. FACS analysis of MNPs A. Negative Control 1: full length membrane nanoparticles samples were stained only with Goat anti-human IgG 488 secondary antibody. B. Negative Control 2: Control membrane nanoparticles samples were stained with anti- antibody (ABIN7455960 and ABIN7490918) at 2 µg/mL, followed by Goat anti-human IgG 488 secondary antibody. C. Negative Control 3: full length membrane nanoparticles samples were stained with anti- antibody (an irrelevant antibody) at 2 µg/mL, followed by Goat anti-human IgG 488 secondary antibody. D. full length membrane nanoparticles samples were stained with anti- antibody (ABIN7455960 and ABIN7490918) at 2 µg/mL, followed by Goat anti-human IgG 488 secondary antibody.



ELISA

Image 2. Elisa plates were pre-coated with 0.5 µg/per well purified human full length membrane nanoparticles. Serial diluted anti- monoclonal antibody (ABIN7455960 and ABIN7490918) solutions were added, washed, and incubated with secondary antibody before Elisa reading. From above data, the EC50 for anti- monoclonal antibody binding with full length membrane nanoparticles is 308.3 ng/mL.