Datasheet for ABIN7455849

CCR2 Protein

3 Images

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Overview

Quantity:	10 µg
Target:	CCR2
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Synthetic Nanodisc

Product Details

Purpose:	Human CCR2 full length protein-synthetic nanodisc
Characteristics:	Unlike other membrane scaffold protein (MSP) Nanodisc on the market, our synthetic Nanodisc can be prepared directly from the cells. The polymers used during this process have a dual function. It dissolves the cell membranes, like the detergent, and uses cellular phospholipids to form Nanodisc around the membrane proteins. The target protein embedded Nanodiscs can then be purified.

Target Details

Target:	CCR2
Alternative Name:	CCR2 (CCR2 Products)
Background:	The protein is a receptor for monocyte chemoattractant protein-1, a chemokine which specifically mediates monocyte chemotaxis. Monocyte chemoattractant protein-1 is involved in monocyte infiltration in inflammatory diseases such as rheumatoid arthritis as well as in the inflammatory response against tumors. The encoded protein mediates agonist-dependent calcium mobilization and inhibition of adenylyl cyclase. This protein can also be a coreceptor

Target Details

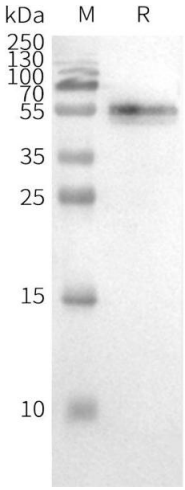
	with CD4 for HIV-1 infection. This gene is located in the chemokine receptor gene cluster region of chromosome 3.
Molecular Weight:	The human full length CCR2 protein has a MW of 41.9 kDa
UniProt:	P41597
Pathways:	cAMP Metabolic Process, Regulation of Leukocyte Mediated Immunity, Positive Regulation of Immune Effector Process

Application Details

Comment:	Advantages of Synthetic Nanodiscs: • Highly purified membrane proteins • High solubility in aqueous solutions • High stability • Proteins are in a native membrane environment and remain biologically active • No detergent and can be used for cell-based assays • No MSP backbone proteins Limitations of Synthetic Nanodiscs: • Intolerant to acids and high concentrations of divalent metal ions
Restrictions:	For Research Use only

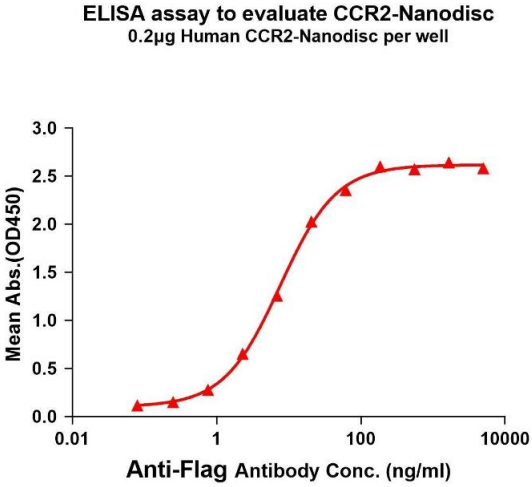
Handling

Format:	Lyophilized
Buffer:	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.
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



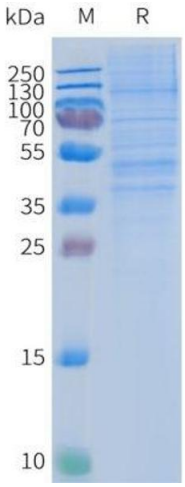
Western Blotting

Image 1. WB analysis of Human -Nanodisc with anti- monoclonal antibody (ABIN7455959 and ABIN7490920), followed by Goat Anti-Human IgG HRP at 1/5000 dilution



ELISA

Image 2. Elisa plates were pre-coated with Flag Tag -Nanodisc (0.2 μg/per well). Serial diluted anti-Flag monoclonal antibody solutions were added, washed, and incubated with secondary antibody before Elisa reading. From above data, the EC50 for anti-Flag monoclonal antibody binding with -Nanodisc is 7.62 ng/mL.



SDS-PAGE

Image 3. Human -Nanodisc, Flag Tag on SDS-PAGE