Datasheet for ABIN7538197

Claudin 6 Protein (CLDN6)

2 Images

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Overview

Quantity:	50 µg
Target:	Claudin 6 (CLDN6)
Origin:	Human
Source:	Mammalian Cells
Protein Type:	MNP Membrane Nanoparticle

Product Details

Purpose:	Human Claudin-6 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:	Claudin 6 (CLDN6)
Alternative Name:	CLDN6 (CLDN6 Products)
Background:	Tight junctions represent one mode of cell-to-cell adhesion in epithelial or endothelial cell sheets, forming continuous seals around cells and serving as a physical barrier to prevent

Target Details

	solutes and water from passing freely through the paracellular space. These junctions are comprised of sets of continuous networking strands in the outwardly facing cytoplasmic leaflet, with complementary grooves in the inwardly facing extracytoplasmic leaflet. This gene encodes a component of tight junction strands, which is a member of the claudin family. The protein is an integral membrane protein and is one of the entry cofactors for hepatitis C virus. The gene methylation may be involved in esophageal tumorigenesis. This gene is adjacent to another family member CLDN9 on chromosome 16.
Molecular Weight:	The human full length CLDN6 Protein has a MW of 23 kDa
UniProt:	P56747
Pathways:	Hepatitis C

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

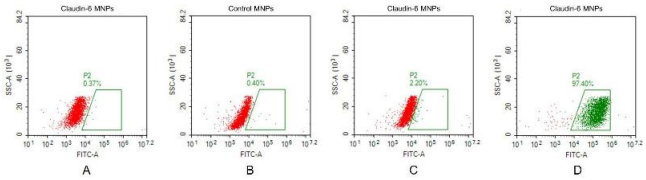
Handling

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).

Handling

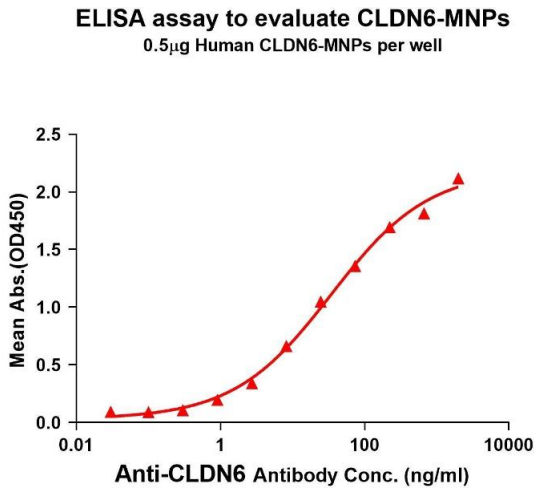
	Lyophilized proteins are shipped at ambient temperature.
Expiry Date:	12 months

Images



Flow Cytometry

Image 1. FACS analysis of C MNPs A. Negative Control 1: C 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-C antibody (ABIN7477987 and ABIN7490912) at 2 µg/mL, followed by Goat anti-human IgG 488 secondary antibody. C. Negative Control 3: C full length membrane nanoparticles samples were stained with anti-GD antibody (an irrelevant antibody) at 2 µg/mL, followed by Goat anti-human IgG 488 secondary antibody. D. C full length membrane nanoparticles samples were stained with anti-C antibody (ABIN7477987 and ABIN7490912) 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 C full length membrane nanoparticles. Serial diluted anti-C monoclonal antibody (ABIN7477987 and ABIN7490912) solutions were added, washed, and incubated with secondary antibody before Elisa reading. From above data, the EC50 for anti-C monoclonal antibody binding with C full length membrane nanoparticles is 34.36 ng/mL.