

Datasheet for ABIN7491600
Claudin 4 Protein (CLDN4)



[Go to Product page](#)

2 Images

Overview

Quantity:	100 µg
Target:	Claudin 4 (CLDN4)
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Synthetic Nanodisc

Product Details

Purpose:	Human CLDN4 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:	Claudin 4 (CLDN4)
Alternative Name:	CLDN4 (CLDN4 Products)
Background:	The protein belongs to the claudin family. Claudins are integral membrane proteins that are components of the epithelial cell tight junctions, which regulate movement of solutes and ions through the paracellular space. This protein is a high-affinity receptor for Clostridium perfringens enterotoxin (CPE) and may play a role in internal organ development and function during pre- and postnatal life. This gene is deleted in Williams-Beuren syndrome, a

Target Details

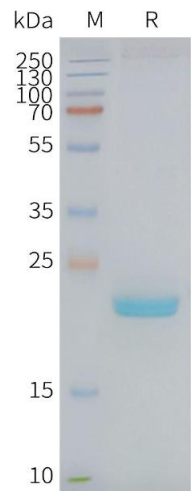
	neurodevelopmental disorder affecting multiple systems.
Molecular Weight:	The human full length CLDN4 protein has a MW of 22.1 kDa
UniProt:	O14493
Pathways:	Hepatitis C

Application Details

Comment:	<p>Advantages of Synthetic Nanodiscs:</p> <ul style="list-style-type: none">• 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 <p>Limitations of Synthetic Nanodiscs:</p> <ul style="list-style-type: none">• Intolerant to acids and high concentrations of divalent metal ions
Restrictions:	For Research Use only

Handling

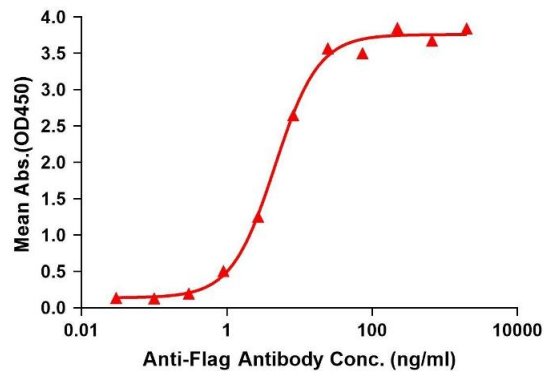
Format:	Lyophilized
Buffer:	Lyophilized from nanodisc solubilization buffer (20 mM Tris-HCl, 150 mM NaCl, pH 8.0). Normally 5 % - 8 % trehalose is added as protectants before lyophilization.
Storage:	-20 °C,-80 °C
Storage Comment:	Store at -20°C to -80°C for 12 months in lyophilized form. After reconstitution, 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



SDS-PAGE

Image 1. Human C-Nanodisc, Flag Tag on SDS-PAGE

ELISA assay to evaluate CLDN4-Nanodisc
0.2µg Human CLDN4-Nanodisc per well



ELISA

Image 2. Elisa plates were pre-coated with Flag Tag C-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 C-Nanodisc is 4.607 ng/mL.