

Datasheet for ABIN7491593

CLDN18.2 Protein**3** Images[Go to Product page](#)

Overview

| | |
|---------------|--------------------|
| Quantity: | 100 µg |
| Target: | CLDN18.2 |
| Origin: | Human |
| Source: | HEK-293 Cells |
| Protein Type: | Synthetic Nanodisc |

Product Details

| | |
|------------------|--|
| Purpose: | Human CLDN18.2 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: | CLDN18.2 |
| Background: | The protein encodes a member of the claudin family. Claudins are integral membrane proteins and components of tight junction strands. Tight junction strands serve as a physical barrier to prevent solutes and water from passing freely through the paracellular space between epithelial or endothelial cell sheets, and also play critical roles in maintaining cell polarity and signal transductions. This gene is upregulated in patients with ulcerative colitis and highly overexpressed in infiltrating ductal adenocarcinomas. PKC/MAPK/AP-1 (protein kinase |

Target Details

C/mitogen-activated protein kinase/activator protein-1) dependent pathway regulates the expression of this gene in gastric cells. Alternatively spliced transcript variants encoding different isoforms have been identified. [provided by RefSeq, Jun 2010]

Molecular Weight: The human full length CLDN18.2 Protein has a MW of 27.5 kDa

UniProt: [P56856](#)

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

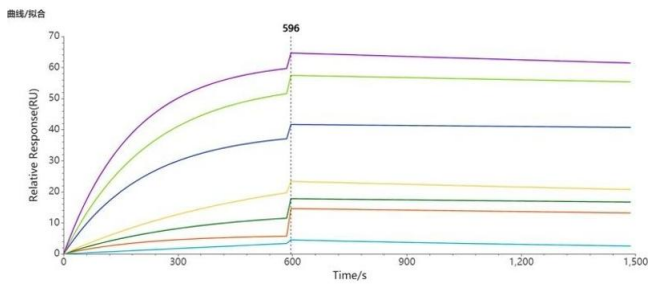
Format: Lyophilized

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.

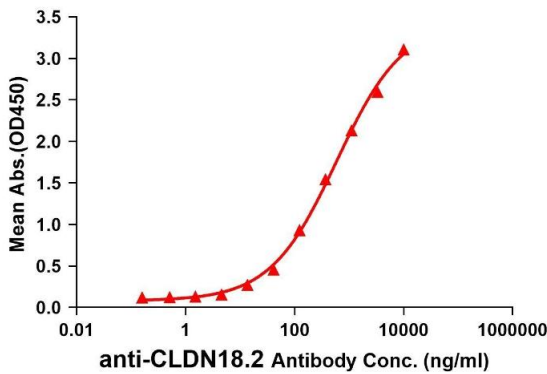
Expiry Date: 12 months



Surface Plasmon Resonance

Image 1. Human C.2-Nanodisc can bind Anti-C.2 antibody (ABIN7477985 and ABIN7490908) with an affinity constant of 1.619 nM as determined in a SPR assay.

ELISA assay to evaluate CLDN18.2-Nanodisc
0.2µg Human CLDN18.2 Nanodisc per well



ELISA

Image 2. Elisa plates were added with Flag Tag C.2-Nanodisc (0.2 µg/per well) on an anti-Flag monoclonal antibody pre-coated (0.2 µg/per well) plate. Serial diluted anti- C.2 monoclonal antibody (ABIN7477985 and ABIN7490908) solutions were added, washed, and incubated with secondary antibody before Elisa reading. From above data, the EC50 for anti- C.2 monoclonal antibody binding with C.2-Nanodisc is 593.6 ng/mL.



SDS-PAGE

Image 3. Human C.2-Nanodisc, Flag Tag on SDS-PAGE