Biotinylated Human / Cynomolgus Claudin-18.2 Protein, Avitag™,His Tag (Nanodisc)

Catalog # CL2-H85Q7

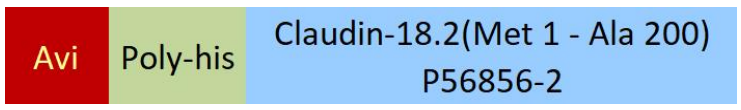
Synonym

Claudin-18.2,CLDN18,Claudin-18

Source

Biotinylated Human / Cynomolgus Claudin-18.2 Protein, Avitag,His Tag (CL2-H85Q7) is expressed from Baculovirus-Insect cells. It contains AA Met 1 - Ala 200 (Accession # P56856-2). In the region AA Met 1 - Ala 200, the AA sequence of Human and Cynomolgus Claudin-18.2 are homologus.
Predicted N-terminus: Met

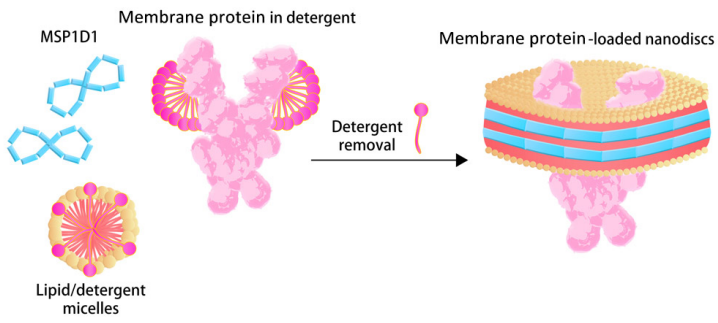
Molecular Characterization



This protein carries an Avi tag (Avitag™) at the N-terminus, followed by a polyhistidine tag.

The protein has a calculated MW of 24.8 kDa.

Nanodiscs are a new class of model membranes that are being used to solubilize and study a range of integral membrane proteins and membrane-associated proteins. The Nanodisc bilayer is bounded by a membrane scaffold protein (MSP1D1) coat that confers enhanced stability and a narrow particle size distribution.



The nanodisc assembles from a mixture of full length membrane protein in detergent, phospholipid micelles and membrane scaffold protein(MSP1D1) upon removal of the detergent.

Labeling

Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

Endotoxin

Less than 1.0 EU per μg by the LAL method.
*The isotype control of empty/mock nanodisc (Cat. No. APO-H81Q5) is sold separately and not included in protein, you can follow this link for product information.

Purity

>80% as determined by SDS-PAGE.

Formulation

Supplied as 0.2 μm filtered solution in 20 mM HEPES, 150 mM NaCl, pH7.5 with trehalose as protectant.

Contact us for customized product form or formulation.

Shipping

This product is supplied and shipped with dry ice, please inquire the shipping cost.

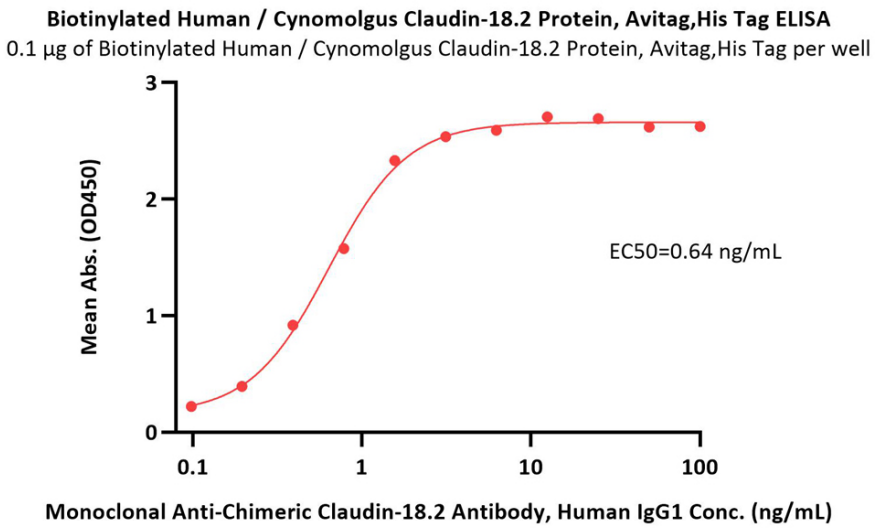
Storage

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

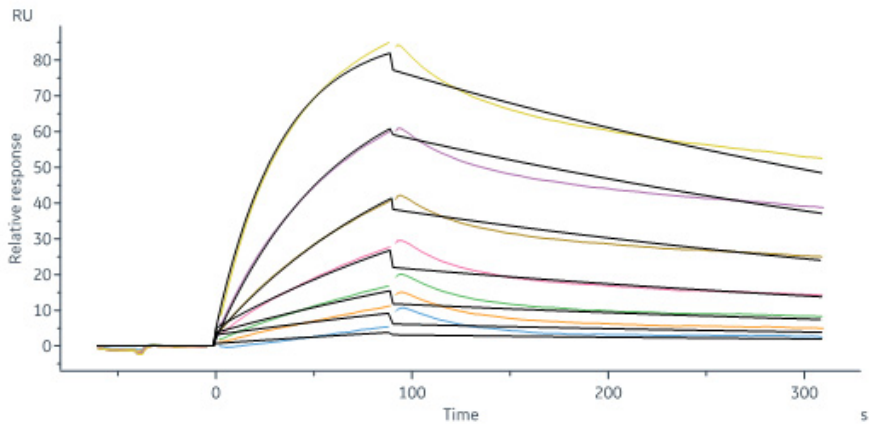
- The product MUST be stored at -70°C or lower upon receipt;
- -70°C for 3 months under sterile conditions.

Bioactivity-ELISA



Immobilized Biotinylated Human / Cynomolgus Claudin-18.2 Protein, Avitag,His Tag (Cat. No. CL2-H85Q7) at 1 μg/mL (100 μL/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5 μg/well) plate can bind Monoclonal Anti-Chimeric Claudin-18.2 Antibody, Human IgG1 with a linear range of 0.1-2 ng/mL (QC tested).

Bioactivity-SPR



Biotinylated Human / Cynomolgus Claudin-18.2 Protein, Avitag,His Tag (Cat. No. CL2-H85Q7) captured on Biotin CAP-Series S Sensor Chip can bind Monoclonal Anti-Chimeric Claudin-18.2 Antibody, Human IgG1 with an affinity constant of 0.953 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).

Background

Claudins (CLDNs) are a family of proteins that form tight junctions and maintain the polarity of epithelial and endothelial cells. CLDN18 is specifically expressed in the stomach and lung. Of the two CLDN18 isoform transcripts produced by alternative splicing, CLDN18.2 is a highly selective gastric lineage marker that determines the gastric phenotype in a neoplastic condition, whereas CLDN18.1 is lung specific. CLDN18.2 is a highly selective gastric lineage antigen expressed exclusively on short-lived differentiated gastric epithelial cells where it has only limited accessibility to antibody drugs.14,15 CLDN18.2 is maintained during the course of malignant transformation and thus frequently displayed on the surface of human gastric cancer cells.

Clinical and Translational Updates