Catalog # CL2-H5587



#### Synonym

Claudin-18.2, CLDN18, Claudin-18

#### Source

Human / Cynomolgus Claudin-18.2, His, Twin-Strep Tag (CL2-H5587) is expressed from Baculovirus-Insect cells. It contains AA Met 1 - Ala 200 (Accession # <u>P56856-2</u>). In the region AA Met 1 - Ala 200, the AA sequence of Human and Cynomolgus Claudin-18.2 are homologus. Predicted N-terminus: His

Fredicted N-terminus. Ths

## **Molecular Characterization**

Poly-his Claudin-18.2(Met 1 - Ala 200) P56856-2 Twin-Strep

This protein carries a polyhistidine tag at the N-terminus and a twin strep tag at the C-terminus.

The protein has a calculated MW of 26.3 kDa. The protein migrates as 20 kDa, 40 kDa and 48-130 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

## Endotoxin

Less than 1.0 EU per  $\mu$ g by the LAL method.

# Purity

>85% as determined by SDS-PAGE.

## Formulation

*This product is not suitable for cell based experiments due to cytotoxicity of DDM.* 

DDM and CHS are INDISPENSABLE to keep membrane protein soluble and active, under no circumastance should you remove DDM and CHS. DDM/CHS buffer (DC-11) is sold separately and not included in protein, and please contact us if you need the buffer.

*If glycerol is not compatible to your application, remove glycerol just before immediate experiment, and NEVER store glycerol-free protein solution.* 

Supplied as 0.2 µm filtered solution in 50 mM HEPES, 150 mM NaCl, DDM, CHS, pH7.5 with glycerol 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.* 

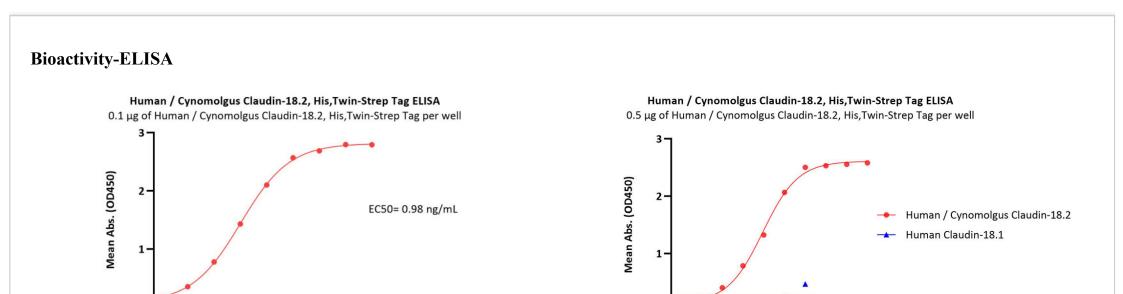
## Storage

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 6 months under sterile conditions.

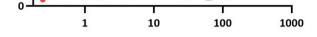
\*\*The DDM/CHS buffer (Cat. No. DC-11) is sold separately and not included in protein, you can follow this link for product information.





Monoclonal Anti-Chimeric Claudin-18.2 Antibody, Human IgG1 Conc. (ng/mL)

Immobilized Human / Cynomolgus Claudin-18.2, His, Twin-Strep Tag (Cat. No. CL2-H5587) at 1  $\mu$ g/mL (100  $\mu$ L/well) can bind Monoclonal Anti-



Monoclonal Anti-Chimeric Claudin-18.2 Antibody, Human IgG1 Conc. (ng/mL)

Immobilized Human / Cynomolgus Claudin-18.2, His, Twin-Strep Tag (Cat. No. CL2-H5587) and Human Claudin-18.1, His, Twin-Strep Tag (Cat. No. CL1-H5588) at 5  $\mu$ g/mL (100  $\mu$ L/well) respectively, the Monoclonal Anti-



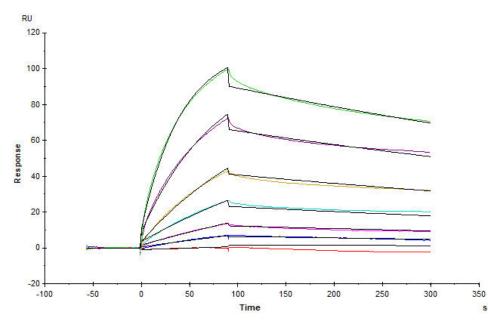
Catalog # CL2-H5587



Chimeric Claudin-18.2 Antibody, Human IgG1 (Cat. No. CL2-M34) with a linear range of 0.1-2 ng/mL (QC tested).

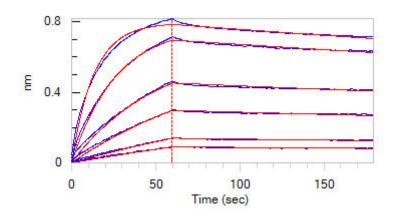
Chimeric Claudin-18.2 Antibody, Human IgG1 can bind the Human / Cynomolgus Claudin-18.2, His,Twin-Strep Tag (Cat. No. CL2-H5587) with a linear range of 0.2-16 ng/mL, but can not bind the Human Claudin-18.1, His,Twin-Strep Tag (Cat. No. CL1-H5588) (Routinely tested).

## **Bioactivity-SPR**



Anti-Claudin-18.2 mAb captured on CM5 chip via anti-Human IgG (Fc) antibody can bind Human / Cynomolgus Claudin-18.2, His,Twin-Strep Tag (Cat. No. CL2-H5587) with an affinity constant of 6.72 nM as determined in a SPR assay (in presence of DDM and CHS) (Biacore T200) (Routinely tested).

## **Bioactivity-BLI**



Loaded Monoclonal Anti-Chimeric Claudin-18.2 Antibody, Human IgG1 on AHC Biosensor, can bind Human / Cynomolgus Claudin-18.2, His,Twin-Strep Tag (Cat. No. CL2-H5587) with an affinity constant of 3.03 nM as determined in BLI assay (ForteBio Octet Red96e) (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.



Catalog # CL2-H5587

Clinical and Translational Updates





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