CLDN 18.2 - Human Claudin 18.2 protein # PL119

Product specification

Acronym: CLDN 18.2
Synonyms: Claudin-18
Origin species : Human
Protein reference : P56856-2 (UniProtKB)
NP_001002026.1 (GenBank)
Family : Tight junction protein in gastric mucosa
Isoform : Full-length isoform A2

Expression system: E.coli based CFPS
Format: Proteoliposomes
Protein sequence: Met1 – Val261
Tag : 6xHis tag (N-ter)
Cleavage site: Factor Xa
Product MW: 30 kDa
Applications : Screening antibody-based drug candidates binding with CLDN18.2, measuring binding affinity and stability, using as immunogen for anti-CLDN18.2 antibody development.

Product description

The claudin18.2 (CLDN18.2) protein, an isoform of claudin18, a member of the tight junction protein family, is a highly selective biomarker with limited expression in normal tissues and often abnormal expression during the occurrence and development of various primary malignant tumors, such as gastric cancer/gastroesophageal junction (GC/GEJ) cancer, breast cancer, colon cancer, liver cancer, head and neck cancer, bronchial cancer and non-small-cell lung cancer. CLDN18.2 participates in the proliferation, differentiation and migration of tumor cells.

Recombinant protein sequence

His tag – factor X cleavage site –
MAVTACQGLGFVVSLIGIAGIIAATCMDQWSTQDLYNNPVTAVFNYQGLWRSCVRESSGFTECRGYFTLLGLPAMLQAVRALMIVG IVLGAIGLLVSIFALKCIRIGSMEDSAKANMTLTSGIMFIVSGLCAIAGVSVFANMLVTNFWMSTANMYTGMGGMVQTVQTRYTFG AALFVGWVAGGLTLIGGVMMCIACRGLAPEETNYKAVSYHASGHSVAYKPGGFKASTGFGSNTKNKKIYDGGARTEDEVQSYPSK HDYV

Quality analysis

Purity:
Liposomes are directly incorporated into the Cell-Free reaction, thus, some impurities from the *E.coli* lysate might be present in the proteoliposomes.
A negative control (proteoliposomes without the protein of interest) can be provided.
The purity can be improved by protein expression in detergent and relipidation after purification step(s).

Purification procedure: CLDN 18.2 proteoliposomes are purified on a sucrose gradient.

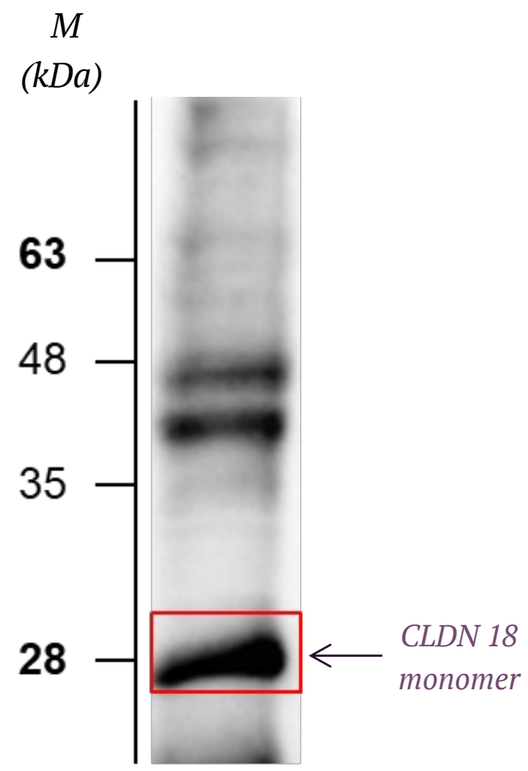


Fig.1: *Identification of CLDN18.2 in the proteoliposomes by Western Blot (using an anti-6xHis antibody).*

NB : Migration of membrane proteins on SDS-PAGE can result in « gel shifting » due to the presence of hairpins (helix-loop-helix)[1-3].

References :
1 – Rath A., et al., Detergent binding explains anomalous SD-PAGE migration of membrane proteins PNAS, 2009 Feb 10, vol. 106
2 – Rath A., et al., Acrylamide concentration determines the direction and magnitude of helical membrane protein gel shifts, PNAS, 2013 Sep 24, 110(39)
3 – Rath A., et al., Correction factors for membrane protein molecular weight readouts on sodium dodecyl sulfate-polyacrilamide gel electrophoresis, Anal. Biochem., 2013 Mar 1, 434(1)

Formulation

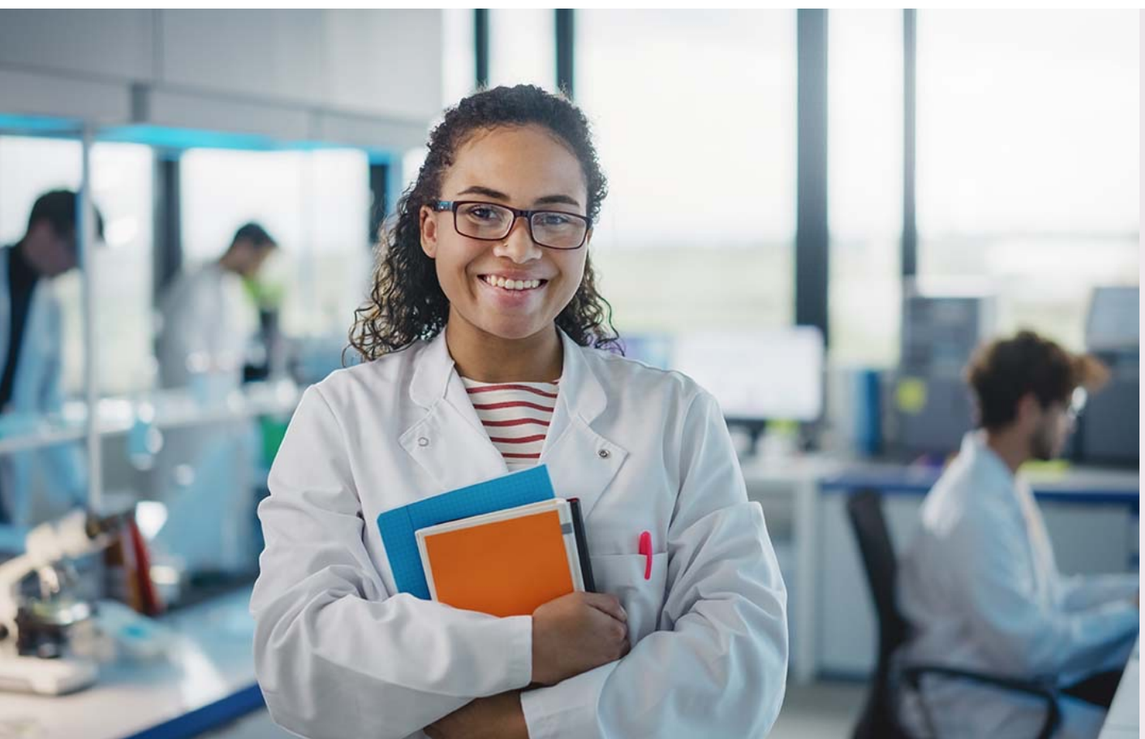
Buffer: Available in Hepes 50 mM, pH 7.5 with cryoprotectants. Other buffers or customized formulation can be provided upon request.

Customized Hydrophobic matrix: Customized formulation with specific lipids like PEGylated or biotinylated lipids can be used upon request, as well as targeting molecules.

Storage/Stability: Store at +4°C for up to one week or several months at -80°C. Aliquot for storage.
Do not freeze-thaw after aliquoting.

Use restrictions: For life science research use only.

Available sizes: 10 µg, 50 µg, 100 µg, customized quantity on request.



Need a specific amount, a quote or any additional information?
Contact-us

Synthelis

T : +33 (0)4 76 54 95 35
E: contact@synthelis.fr
www.synthelis.com