

# Human Claudin-1 Full Length Protein, His Tag (Nanodisc-pro)

Catalog # CL1-H55H3



BIOSYSTEMS  
**Acro**

## Application

- Cell based assay (FACS or functional assay)
- Affinity testing (SPR / BLI)
- Screening ([ELISA](#))

## Synonyms

CLD1, ILVASC, SEMP1

## Source

Nanodisc-pro Human Claudin-1 Full Length Protein, His Tag (CL1-H55H3) is expressed from Baculovirus-Insect cells. It contains AA Ala 2 - Val 211 (Accession # [O95832](#)).

Predicted N-terminus: Met

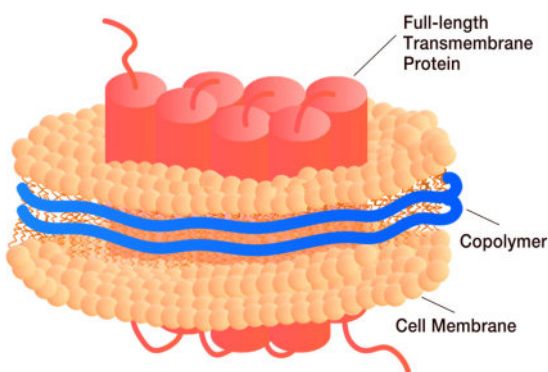
## Molecular Characterization

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 84.6 kDa. The protein migrates as 40 kDa and 75-95 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

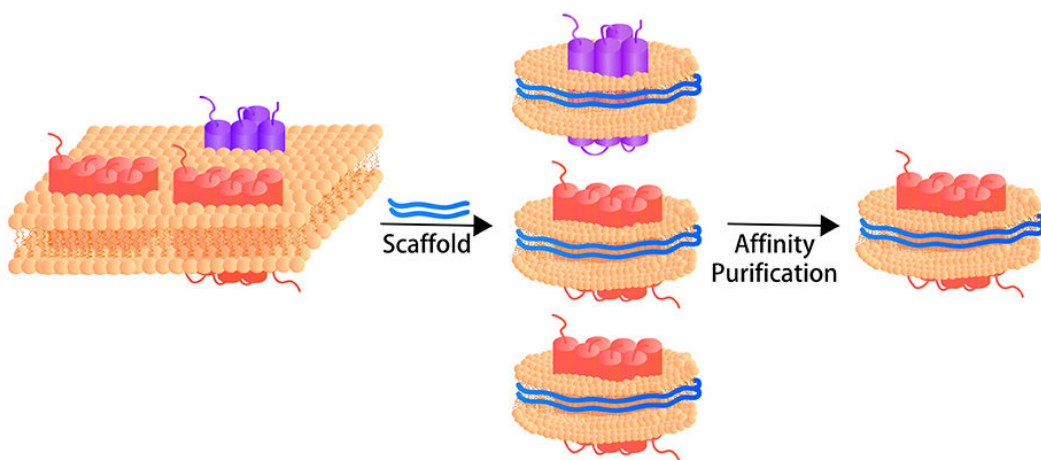
\*The isotype control of empty/mock nanodisc (Cat. No. [APO-H5143](#)) is sold separately and not included in protein, you can follow [the link](#) for product information.

### • Structure



Nanodisc-pro membrane protein is wrapped by a piece of cell membrane and scaffold, the info of scaffold can be found in above red text "isotope type control...".

### • Synthesis Process



Nanodisc-pro membrane protein extraction is a gentle, non-disruptive process that **directly isolates full-length transmembrane proteins together with their surrounding native phospholipids from cellular membranes**, without breaking or disturbing the original membrane structure. This preserves the membrane protein's natural conformational landscape and native lipid environment, yielding stable nanodisc that retain cellular phospholipids, with fully preserved biological activity—making them **ideal for cell-based assays such as FACS** and binding assays in antibody discovery and screening (ELISA), etc.

## Purity

>85% as determined by SDS-PAGE.

## Formulation

Supplied as 0.2  $\mu$ m filtered solution in 20 mM HEPES, 150 mM NaCl, pH7.3 with glycerol as protectant.

Contact us for customized product form or formulation.

## Shipping and Storage

This product is supplied and shipped on dry ice.

**Please avoid repeated freeze-thaw cycles.**

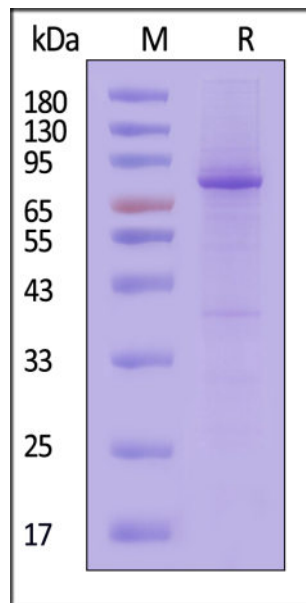
This product is stable after storage at:

- The product MUST be stored at -70°C or lower upon receipt;
- -70°C for 12 months under sterile conditions.

## ACRO Quality Management System

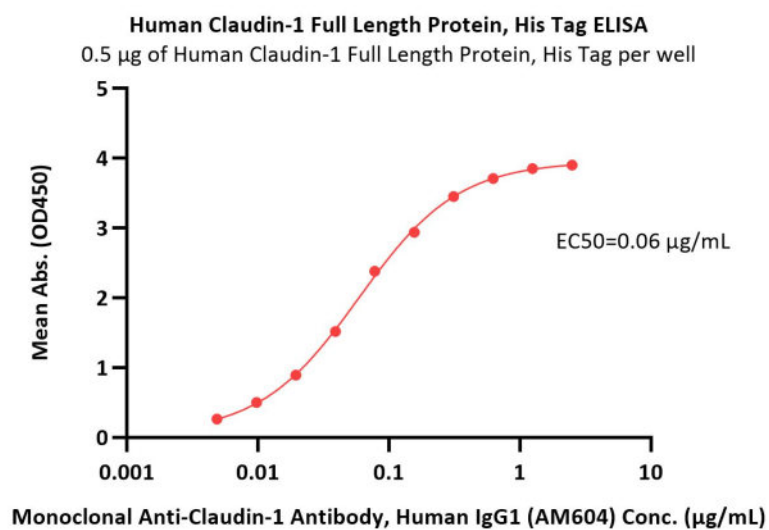
- [QMS\(ISO, GMP\)](#).
- [Quality Advantages](#)
- [Quality Control Process](#)

## SDS-PAGE



Human Claudin-1 Full Length Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 85% (With [Star Ribbon Pre-stained Protein Marker](#)).

## Bioactivity-ELISA



Immobilized Human Claudin-1 Full Length Protein, His Tag (Cat. No. CL1-H55H3) at 5 µg/mL (100 µL/well) can bind Monoclonal Anti-Claudin-1 Antibody, Human IgG1 (AM604) with a linear range of 0.005-0.156 µg/mL (QC tested).

## Background

A widely expressed tight junction protein essential for epidermal barrier function and liver homeostasis. It is a critical host co-receptor for Hepatitis C Virus (HCV) entry, making it a historical antiviral target. In cancer, Claudin-1 overexpression promotes invasion and is linked to colorectal and liver tumor progression.

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