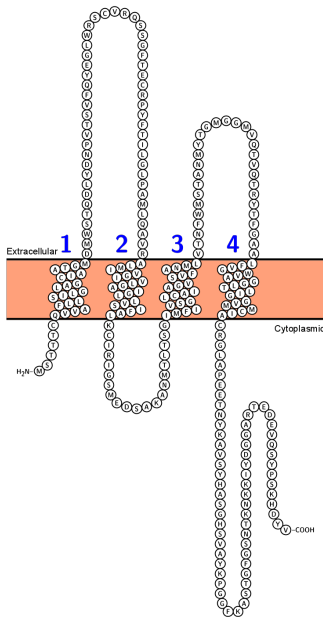


# Claudin-18

Organism: Homo sapiens (Human) | Gene names: CLDN18, UNQ778/PRO1572



**Entry:** P56856

**Mass:** 27.856 Da

**Transmembrane:** 4

**Subcellular location:** Cell junction, tight junction

{ECO:0000250|UniProtKB:P56857}. Cell membrane

{ECO:0000250|UniProtKB:P56857}, Multi-pass

membrane protein {ECO:0000255}. Note=Localizes to

tight junctions in epithelial cells.

{ECO:0000250|UniProtKB:P56857}.

**Cofactor:** -

**Extinction coefficient:** 1.396

**Isoelectric Point:** 8.39

**PubMed ID:** 11585919, 12975309, 15489334,

19047087

**Family:** -

## Function:

Plays a major role in tight junction-specific obliteration of the intercellular space, through calcium-independent cell-adhesion activity. {ECO:0000250}.

**Data from experiment(s): Hek293 membrane pellets**

DIBMA 10	No data	DIBMA 12	No data
DIBMA Glycerol	No data	DIBMA Glucosamine	No data
Amphipol 17	No data	Amphipol 18	No data
AASTY 6-45	No data	AASTY 11-45	No data
AASTY 6-50	No data	AASTY 11-50	No data
AASTY 6- 55	No data	AASTY 11- 55	No data
SMALP 502-E	No data	SMALP 140-I	No data
SMALP 300	No data	SMALP 200	No data
SMALP 140	No data	DDM	No data
DM	No data	LMNG	No data
Fos-12	No data	Digitonin-A	No data
RIPA	No data		

**Data from experiment(s): Hek293 membrane pellets 1 %**

DIBMA 10	No data	DIBMA 12	No data
DIBMA Glycerol	No data	DIBMA Glucosamine	No data
Amphipol 17	No data	Amphipol 18	No data
AASTY 6-45	No data	AASTY 11-45	No data
AASTY 6-50	No data	AASTY 11-50	No data
AASTY 6- 55	No data	AASTY 11- 55	No data
SMALP 502-E	No data	SMALP 140-I	No data
SMALP 300	No data	SMALP 200	No data
SMALP 140	No data	DDM	No data
DM	No data	LMNG	No data
Fos-12	No data	Digitonin-A	No data
RIPA	No data		

**Involvement in disease:**

-

**Binding site:**

-

**Tissue specificity:**

Isoform A1: Expression is restricted to the lung (PubMed:19047087). Isoform A2: Expression is restricted to the stomach mucosa where it is predominantly observed in the epithelial cells of the pit region and the base of the gastric glands including exocrine and endocrine cells (at protein level) (PubMed:19047087).

{ECO:0000269|PubMed:19047087}.

3D (X-ray crystallography):

-

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Pharmaceutical use:

-

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AS sequence:

MSTTTTCQVVAFLLSILGLAGCIAATGMDMWSTQDLYDNPVTSVFQYEGLRSCVRQSSGFTECRPYFTILGLPAMLQAVRALMI  
VGIVLGAIGLLVSIFALKCIRIGSMEDSAKANMTLTSGIMFIVSGLCAIAGVSVFANMLVTNFWMSTANMYTGMGGMVQTVQTRY  
TFGAALFVGWVAGGLTLIGGVMMCIACRGLAPEETNYKAVSYHASGHSVAYKPGGFKASTGFGSNTKNKKIYDGGARTEDEVQS  
YPSKHDYV

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Creditnotes:

The protein visualizations are generated with the help of Protter:

Omasits, U., Ahrens, C.H., MÃ¼ller, S., Wollscheid, B. "Protter: interactive protein feature visualization and integration with experimental proteomic data". *Bioinformatics*. 2014 Mar 15; **30**(6):884-6. doi: 10.1093/bioinformatics/btt607.

IP and extinction coefficients are gathered from Protparam by ExPASy:

Gasteiger, E., Hoogland, C., Gattiker, A., Duvaud, S., Wilkins, M.R., Appel, R.D., Bairoch, A. "Protein Identification and Analysis Tools on the ExPASy Server". (In) *John M. Walker (ed): The Proteomics Protocols Handbook*, Humana Press (2005). pp. 571-607

The basic knowledge is found on UniProt:

The UniProt Consortium. "UniProt: the universal protein knowledgebase in 2021". *Nucleic Acids Res.* **49**:D1 (2021)

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