

DESCRIPTION

Cell Line Name	Rat CLDN18.2-CHO-K1 stable cell line
Gene Sequence	XP_006243691.1
Host Cell	Adherent CHO-K1
Quantity	Two vials of frozen cells (1x10 ⁶ per vial)
Culture Medium	DMEM with 10% FBS and 4ug/ml puromycin
Freezing Medium	90% FBS and 10% DMSO
Storage	Liquid nitrogen immediately upon receipt

BACKGROUND

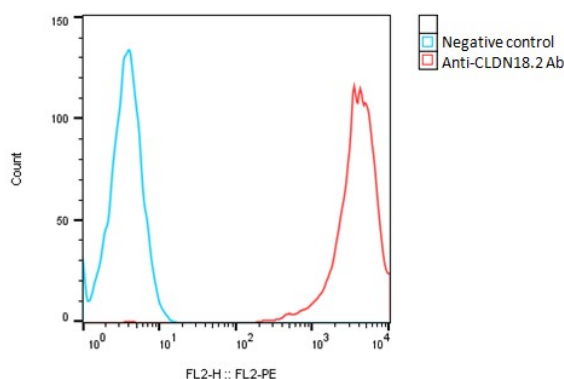
Claudin-18 (CLDN18) is a member of a large family of four-span transmembrane proteins called Claudins. These proteins are the essential components of the mammalian tight junctions (TJs) in epithelial cells. Claudin-18 has two splice variants, 18.1 and 18.2. While CLDN18.1 is specifically expressed in the lung tissue, CLDN18.2 expression in normal tissue is more restricted and is only detected in small patches of stomach mucosal. CLDN18.2 expression is elevated in many types of epithelial cancers including stomach, esophagus, pancreatic and ovarian cancers. The expression of CLDN18.2 is not only detected in primary tumors, but also in the metastatic sites. Therefore, CLDN18.2 is an ideal target for monoclonal antibody-based cancer therapies.

THAWING AND CULTURING

- Remove the cell vial from liquid nitrogen tank and thaw cells quickly in a 37°C water bath
- Transfer the cells to a 15 ml centrifuge tube and slowly add 5 ml of pre-warmed complete growth medium
- Centrifuge the cells at 200x g for 5 min
- Remove the supernatant
- Resuspend cell pellet with 7 ml of complete growth medium and transfer cells to a T25 flask
- Incubate cells in a CO2 incubator with 5% CO2 at 37°C
- Split the cells twice a week or as needed.

DATA

Detection of rat CLDN18.2 expression on rat CLDN18.2-CHO-K1 cells using a monoclonal antibody specific for CLDN18.2 (Cat. #A1008)



REFERENCES

- Türeci O. *et al.* (2011): "Claudin-18 gene structure, regulation, and expression is evolutionary conserved in mammals". *Gene*, 481(2), p83-92.
- Sahin U. *et al.* (2008): "Claudin-18 Splice Variant 2 Is a Pan-Cancer Target Suitable for Therapeutic Antibody Development". *Clin. Cancer Res.* 14 (23) p7624-7634.
- Niimi T. *et al.* (2001): "claudin-18, a Novel Downstream Target Gene for the T/EBP/NKX2.1 Homeodomain Transcription Factor, Encodes Lung- and Stomach-Specific Isoforms through Alternative Splicing". *Mol. Cell. Biol.* 21(21), p7380-7390.

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