

DESCRIPTION

Cell Line Name	Human CLDN18.2-KATO III stable cell pool
Gene Sequence	Full-length human CLDN18.2 (NP_001001026)
Host Cell	KATO III (Semi-adherent)
Quantity	Two vials of frozen cells (~1x10 ⁶ per vial)
Culture Medium	DMEM with 10% FBS and 0.125 µg/mL puromycin
Freezing Medium	90% FBS and 10% DMSO
Storage	Liquid nitrogen

BACKGROUND

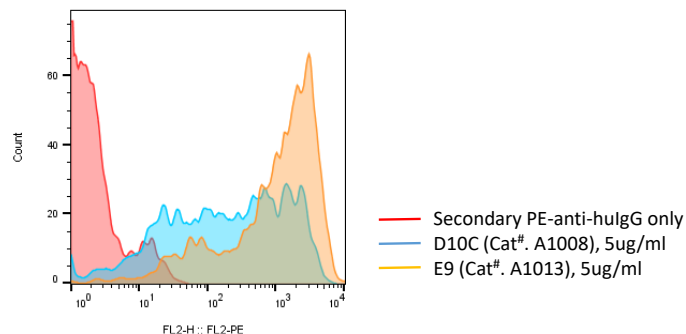
Claudin-18 (CLDN18) is a member of a large family of four-span transmembrane proteins called Claudins. These proteins are the essential components of the mammalian tight junctions (TJs) in epithelial cells. Claudin-18 has two splice variants, 18.1 and 18.2. While CLDN18.1 is specifically expressed in 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 cells to a 15 ml conical tube containing 4 ml of culture medium
- Centrifuge the tube at 200x g for 5 min and discard the supernatant
- Resuspend the cell pellet with 7 ml of culture medium and transfer the cells to a 25 ml cell culture flask
- Incubate the T25 flask in a CO₂ incubator with 5% CO₂ at 37°C.
- Split cells twice a week or as needed.

DATA

Detection of human CLDN18.2 expression on human CLDN18.2-KATO III cells (Cat. #C3016) using recombinant anti-huCLDN18.2 mAbs D10C (Cat. #A1008) and E9 (Cat. #A1013), followed by staining with a secondary PE-anti-human IgG antibody



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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