



SPECIFICATIONS

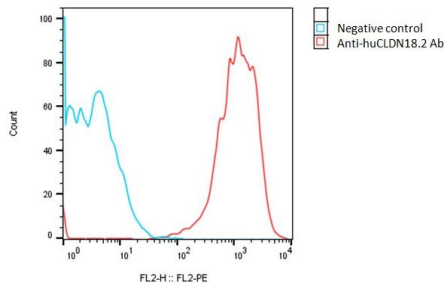
Catalog Number	C3059
Cell Line Name	Human CLDN18.2-Luciferase-GFP-MIA Paca-2 stable cell line
Accession Number	NP_001002026.1
Host Cell	Adherent MIA Paca-2
Quantity	Two vials of frozen cells (2×10^6 per vial)
Culture Medium	DMEM with 10% FBS, 1 μ g/ml puromycin, 250 μ g/ml hygromycin, 1 mg/ml G418
Freezing Medium	90% FBS and 10% DMSO
Storage	Liquid nitrogen

DATA

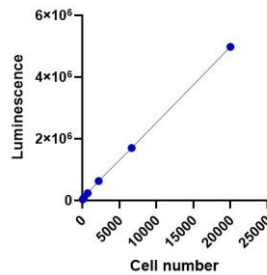
(A) Detection of human CLDN18.2 expression on human CLDN18.2-Luc-MIA Paca-2 stable cells using a monoclonal antibody specific for human CLDN18.2 (Cat #A1008)

(B) Luciferase activity measurement for human CLDN18.2-Luc-MIA Paca-2 stable cells

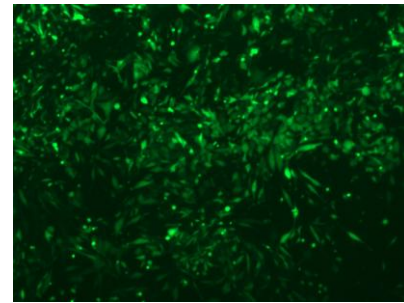
(C) GFP expression for human CLDN18.2-Luc-GFP-MIA Paca-2 stable cells



(A)



(B)



(C)

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.

References

- Türeci O. *et al.* (2011): "Claudin-18 gene structure, regulation, and expression is evolutionary conserved in mammals". *Gene*, 481(2), p83-92.
- Sahni 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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