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Catalog Number	C3013	
Cell Line Name	Rat CLDN18.2-CHO-K1 stable cell line	
Accession Number	XP_006243691.1	
Host Cell	Adherent CHO-K1	
Quantity	Two vials of frozen cells $(1x10^6 \text{ per vial})$	
Culture Medium	DMEM with 10% FBS, 4µg/ml puromycin	
Freezing Medium	90% FBS and 10% DMSO	
Storage	Liquid nitrogen	

DATA

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



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.* Claudin-18 gene structure, regulation, and expression is evolutionary conserved in mammals. *Gene.* **481(2):** 83-92. 2011. Sahin U. *et al.* Claudin-18 Splice Variant 2 Is a Pan-Cancer Target Suitable for Therapeutic Antibody Development. *Clin. Cancer Res.* **14(23):**7624-7634. 2008. Niimi T. *et al.* 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):** 7380-7390. 2001.