## SANTA CRUZ BIOTECHNOLOGY, INC.

# claudin-23 (C-14): sc-87045



The Power to Question

#### BACKGROUND

The claudin superfamily consists of structurally related proteins that are important structural and functional components of tight junctions. Claudin-23, also known as CLDN23 or CLDNL, is a 292 amino acid multi-pass membrane protein that localizes to cell junctions and belongs to the claudin family. Expressed in stomach and placenta, as well as in germinal center B cells, claudin-23 is thought to exhibit calcium-dependent cell-adhesion activity through which it plays an essential role in tight junction-specific obliteration of the intercellular space. Human claudin-23 shares 80% sequence similarity with its mouse counterpart, suggesting a conserved role between species. Overexpression of caludin-23 is associated with colon tumors, implicating claudin-23 as a possible metastasis factor.

## REFERENCES

- Gress, T.M., Müller-Pillasch, F., Geng, M., Zimmerhackl, F., Zehetner, G., Friess, H., Büchler, M., Adler, G. and Lehrach, H. 1996. A pancreatic cancerspecific expression profile. Oncogene 13: 1819-1830.
- Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 609203: World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- Katoh, M. and Katoh, M. 2003. CLDN23 gene, frequently downregulated in intestinal-type gastric cancer, is a novel member of CLAUDIN gene family. Int. J. Mol. Med. 11: 683-689.
- Katoh, M. 2005. Epithelial-mesenchymal transition in gastric cancer (Review). Int. J. Oncol. 27: 1677-1683.
- Ballana, E., Mercader, J.M., Fischel-Ghodsian, N. and Estivill, X. 2007. MRPS18CP2 alleles and DEFA3 absence as putative chromosome 8p23.1 modifiers of hearing loss due to mtDNA mutation A1555G in the 12S rRNA gene. BMC Med. Genet. 8: 81.
- Rikova, K., Guo, A., Zeng, Q., Possemato, A., Yu, J., Haack, H., Nardone, J., Lee, K., Reeves, C., Li, Y., Hu, Y., Tan, Z., Stokes, M., Sullivan, L., Mitchell, J., Wetzel, R., Macneill, J., Ren, J.M., Yuan, J., Bakalarski, C.E., Villen, J., et al. 2007. Global survey of phosphotyrosine signaling identifies oncogenic kinases in lung cancer. Cell 131: 1190-1203.
- Gaetje, R., Holtrich, U., Engels, K., Kissler, S., Rody, A., Karn, T. and Kaufmann, M. 2008. Differential expression of claudins in human endometrium and endometriosis. Gynecol. Endocrinol. 24: 442-449.
- 8. Will, C., Fromm, M. and Müller, D. 2008. Claudin tight junction proteins: novel aspects in paracellular transport. Perit. Dial. Int. 28: 577-584.

#### CHROMOSOMAL LOCATION

Genetic locus: CLDN23 (human) mapping to 8p23.1.

## **STORAGE**

Store at 4° C, \*\*D0 NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

#### **RESEARCH USE**

For research use only, not for use in diagnostic procedures.

#### SOURCE

claudin-23 (C-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of claudin-23 of human origin.

## PRODUCT

Each vial contains 200  $\mu g$  IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-87045 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

#### **APPLICATIONS**

claudin-23 (C-14) is recommended for detection of claudin-23 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for claudin-23 siRNA (h): sc-77716, claudin-23 shRNA Plasmid (h): sc-77716-SH and claudin-23 shRNA (h) Lentiviral Particles: sc-77716-V.

Molecular Weight of claudin-23: 32 kDa.

#### **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluo-rescence: use donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

#### PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.