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SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

linkedin.com/company/szaboscandic

SANTA CRUZ BIOTECHNOLOGY, INC.

Pcdh20 siRNA (m): sc-152060

BACKGROUND

As a subfamily of the cadherin superfamily, protocadherins are cadherin-like cell adhesion proteins that contain up to seven extracellular domains and are predominantly expressed in the nervous system. Importantly, the adhesion mechanism of protocadherins is distinct from classic cadherins. Through inactivation or overexpression, several protocadherins have been implicated in a variety of cancers. Protocadherin-20 (PCDH20), also known as protocadherin-13, is a 924 amino acid protein containing six cadherin domains and potentially functioning as a calcium-dependent cell-adhesion protein. In non-small cell lung cancer cell lines, a homozygous loss of PCDH20 was identified through either deletion of one allele and methylation of the other or methylation of both alleles. Hypermethylation of PCDH20 is associated with worse prognosis and clinical outcome, suggesting that PCDH20 may function as a tumor suppressor.

REFERENCES

1. Waters, P.D., Kirby, P.J. and Graves, J.A. 2002. Assignment of the protocadherin 20 (PCDH20) gene to tammar wallaby chromosome 6q by fluorescence *in situ* hybridisation. Cytogenet. Genome Res. 98: 311D.
2. Imoto, I., Izumi, H., Yokoi, S., Hosoda, H., Shibata, T., Hosoda, F., Ohki, M., Hirohashi, S. and Inazawa, J. 2006. Frequent silencing of the candidate tumor suppressor PCDH20 by epigenetic mechanism in non-small-cell lung cancers. Cancer Res. 66: 4617-4626.
3. Morishita, H. and Yagi, T. 2007. Protocadherin family: diversity, structure, and function. Curr. Opin. Cell Biol. 19: 584-592.
4. Morgan, M. 2008. Models for the recent evolution of protocadherin gene clusters. Biocell 32: 9-26.
5. Lee, W., Cheng, T.W. and Gong, Q. 2008. Olfactory sensory neuron-specific and sexually dimorphic expression of protocadherin 20. J. Comp. Neurol. 507: 1076-1086.
6. Yu, J., Cheng, Y.Y., Tao, Q., Cheung, K.F., Lam, C.N., Geng, H., Tian, L.W., Wong, Y.P., Tong, J.H., Ying, J.M., Jin, H., To, K.F., Chan, F.K. and Sung, J.J. 2009. Methylation of protocadherin 10, a novel tumor suppressor, is associated with poor prognosis in patients with gastric cancer. Gastroenterology 136: 640-651.
7. Kaneko, R., Kawaguchi, M., Toyama, T., Taguchi, Y. and Yagi, T. 2009. Expression levels of protocadherin-α transcripts are decreased by nonsense-mediated mRNA decay with frameshift mutations and by high DNA methylation in their promoter regions. Gene 430: 86-94.
8. Krishna-K, C. 2009. Expression of cadherin superfamily genes in brain vascular development. J. Cereb. Blood Flow Metab. 29: 224-229.
9. Jennbacken, K., Gustavsson, H., Tesan, T., Horn, M., Vallbo, C., Welen, K. and Damber, J.E. 2009. The prostatic environment suppresses growth of androgen-independent prostate cancer xenografts: an effect influenced by testosterone. Prostate 69: 1164-1175.

PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: Pcdh20 (mouse) mapping to 14 E1.

PRODUCT

Pcdh20 siRNA (m) is a pool of 3 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Pcdh20 shRNA Plasmid (m): sc-152060-SH and Pcdh20 shRNA (m) Lentiviral Particles: sc-152060-V as alternate gene silencing products.

For independent verification of Pcdh20 (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-152060A, sc-152060B and sc-152060C.

STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNAses and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

Pcdh20 siRNA (m) is recommended for the inhibition of Pcdh20 expression in mouse cells.

SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10 µM in 66 µl. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor Pcdh20 gene expression knockdown using RT-PCR Primer: Pcdh20 (m)-PR: sc-152060-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

RESEARCH USE

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