Punctin-2 (S-18): sc-68761



The Power to Question

BACKGROUND

Punctin-2, also known as ADAMTSL3 (ADAMTS-like 3) or KIAA1233, is a 1,691 amino acid protein that localizes to the extracellular matrix and contains one PLAC domain, 3 Ig-like C2 domains and ten TSP type-1 domains. Expressed in a variety of tissues with highest expression in heart, kidney, liver and skeletal muscle, Punctin-2 is thought to play a role in cell-matrix interactions and, when mutated, may be involved in the pathogenesis of colon cancer. The gene encoding Punctin-2 maps to human chromosome 15, which houses over 700 genes and comprises nearly 3% of the human genome. Angelman syndrome, Prader-Willi syndrome, Tay-Sachs disease and Marfan syndrome are all associated with defects in chromosome 15-localized genes.

REFERENCES

- Hall, N.G., Klenotic, P., Anand-Apte, B. and Apte, S.S. 2003. ADAMTSL3/ Punctin-2, a novel glycoprotein in extracellular matrix related to the ADAMTS family of metalloproteases. Matrix Biol. 22: 501-510.
- 2. Porter, S., Clark, I.M., Kevorkian, L. and Edwards, D.R. 2005. The ADAMTS metalloproteinases. Biochem. J. 386: 15-27.
- 3. Online Mendelian Inheritance in Man, OMIM™. 2005. Johns Hopkins University, Baltimore, MD. MIM Number: 609199. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- Cachón-González, M.B., Wang, S.Z., Lynch, A., Ziegler, R., Cheng, S.H. and Cox, T.M. 2006. Effective gene therapy in an authentic model of Tay-Sachs-related diseases. Proc. Natl. Acad. Sci. USA 103: 10373-10378.
- Zody, M.C., Garber, M., Sharpe, T., Young, S.K., Rowen, L., O'Neill, K., Whittaker, C.A., Kamal, M., Chang, J.L., Cuomo, C.A., Dewar, K., Fitzgerald, M.G., Kodira, C.D., Madan, A., Qin, S., Yang, X., Abbasi, N., et al. 2006. Analysis of the DNA sequence and duplication history of human chromosome 15. Nature 440: 671-675.
- Diene, G., Postel-Vinay, A., Pinto, G., Polak, M. and Tauber, M. 2007. The Prader-Willi syndrome. Annu. Endocrinol. 68: 129-137.
- 7. Lalande, M. and Calciano, M.A. 2007. Molecular epigenetics of Angelman syndrome. Cell. Mol. Life Sci. 64: 947-960.
- 8. Koo, B.H., Hurskainen, T., Mielke, K., Aung, P.P., Casey, G., Autio-Harmainen, H. and Apte, S.S. 2007. ADAMTSL3/Punctin-2, a gene frequently mutated in colorectal tumors, is widely expressed in normal and malignant epithelial cells, vascular endothelial cells and other cell types, and its mRNA is reduced in colon cancer. Int. J. Cancer 121: 1710-1716.
- Nord, H., Hartmann, C., Andersson, R., Menzel, U., Pfeifer, S., Piotrowski, A., Bogdan, A., Kloc, W., Sandgren, J., Olofsson, T., Hesselager, G., Blomquist, E., Komorowski, J., von Deimling, A., Bruder, C.E., Dumanski, J.P. and Díaz de Stahl, T. 2009. Characterization of novel and complex genomic aberrations in glioblastoma using a 32K BAC array. Neuro. Oncol. 11: 803-818.

CHROMOSOMAL LOCATION

Genetic locus: ADAMTSL3 (human) mapping to 15q25.2; Adamtsl3 (mouse) mapping to 7 D3.

SOURCE

Punctin-2 (S-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Punctin-2 of human origin.

PRODUCT

Each vial contains 200 μg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-68761 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Punctin-2 (S-18) is recommended for detection of Punctin-2 of mouse, rat and 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).

Punctin-2 (S-18) is also recommended for detection of Punctin-2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Punctin-2 siRNA (h): sc-76299, Punctin-2 siRNA (m): sc-76300, Punctin-2 shRNA Plasmid (h): sc-76299-SH, Punctin-2 shRNA Plasmid (m): sc-76300-SH, Punctin-2 shRNA (h) Lentiviral Particles: sc-76299-V and Punctin-2 shRNA (m) Lentiviral Particles: sc-76300-V.

Molecular Weight of Punctin-2: 189 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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

Store at 4° C, **DO 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.

PROTOCOLS

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