

# Punctin-2 (K-17): sc-68759

## 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

1. 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/>
4. 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.
5. 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.
6. 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.
9. 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 (K-17) 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-68759 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Punctin-2 (K-17) 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 (K-17) is also recommended for detection of Punctin-2 in additional species, including equine, canine, bovine, porcine and avian.

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](http://www.scbt.com) or our catalog for detailed protocols and support products.