

ADAMTS-17 (Q-12): sc-100480

BACKGROUND

ADAMTS (a disintegrin and metalloproteinase domain with thrombospondin type-1 modules) is a family of zinc-dependent proteases that are implicated in a variety of normal and pathological conditions, including arthritis and cancer. ADAMTS protein family members contain an N-terminal propeptide domain, a metalloproteinase domain, a disintegrin-like domain and a C-terminus that contains a varying number of thrombospondin type-1 (TSP-1) motifs. ADAMTS-17 (ADAM metalloproteinase with thrombospondin type-1 motif, 17) is a 1,095 amino acid secreted protein that belongs to the ADAMTS family. Expressed in liver, prostate, brain and in fetal lung, ADAMTS-17 has seven N-glycosylation sites and shares 56% sequence identity with a related family member, ADAMTS-19. ADAMTS-17 has a conserved cysteine residue in its cysteine-switch motif that, when bound to one zinc ion, inhibits the enzymatic activity of the protein.

REFERENCES

1. Kuno, K., Kanada, N., Nakashima, E., Fujiki, F., Ichimura, F. and Matsushima, K. 1997. Molecular cloning of a gene encoding a new type of metalloproteinase-disintegrin family protein with thrombospondin motifs as an inflammation associated gene. *J. Biol. Chem.* 272: 556-562.
2. Tang, B.L. and Hong, W. 1999. ADAMTS: a novel family of proteases with an ADAM protease domain and Thrombospondin 1 repeats. *FEBS Lett.* 445: 223-225.
3. Cal, S., Obaya, A.J., Llamazares, M., Garabaya, C., Quesada, V. and López-Otín, C. 2002. Cloning, expression analysis, and structural characterization of seven novel human ADAMTSs, a family of metalloproteinases with disintegrin and Thrombospondin 1 domains. *Gene* 283: 49-62.
4. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607511. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Overall, C.M., Tam, E.M., Kappelhoff, R., Connor, A., Ewart, T., Morrison, C.J., Puente, X., López-Otín, C. and Seth, A. 2004. Protease degradomics: mass spectrometry discovery of protease substrates and the CLIP-CHIP, a dedicated DNA microarray of all human proteases and inhibitors. *Biol. Chem.* 385: 493-504.
6. Davidson, R.K., Waters, J.G., Kevorkian, L., Darrah, C., Cooper, A., Donell, S.T. and Clark, I.M. 2006. Expression profiling of metalloproteinases and their inhibitors in synovium and cartilage. *Arthritis Res. Ther.* 8: R124.

CHROMOSOMAL LOCATION

Genetic locus: ADAMTS17 (human) mapping to 15q26.3; Adamts17 (mouse) mapping to 7 C.

SOURCE

ADAMTS-17 (Q-12) is a mouse monoclonal antibody raised against recombinant ADAMTS-17 of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

ADAMTS-17 (Q-12) is recommended for detection of ADAMTS-17 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

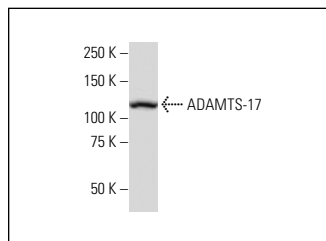
Suitable for use as control antibody for ADAMTS-17 siRNA (h): sc-72445, ADAMTS-17 siRNA (m): sc-72446, ADAMTS-17 shRNA Plasmid (h): sc-72445-SH, ADAMTS-17 shRNA Plasmid (m): sc-72446-SH, ADAMTS-17 shRNA (h) Lentiviral Particles: sc-72445-V and ADAMTS-17 shRNA (m) Lentiviral Particles: sc-72446-V.

Molecular Weight of ADAMTS-17: 121 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



ADAMTS-17 (Q-12): sc-100480. Western blot analysis of ADAMTS-17 expression in A-431 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Jia, Z., Gao, S., M'Rabet, N., De Geyter, C. and Zhang, H. 2014. Sp1 is necessary for gene activation of ADAMTS17 by estrogen. *J. Cell. Biochem.* 115: 1829-1839.

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 for detailed protocols and support products.