# ADAMTS-15 (C-16): sc-68441



The Power to Question

## **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 amino-terminal propeptide domain, a metalloproteinase domain, a disintegrin-like domain and a carboxy-terminus that contains a varying number of thrombospondin type-1 (TSP 1) motifs. ADAMTS genes are primarily expressed in fetal tissues, including the lung, kidney and liver. ADAMTS-15 is a weak aggrecanase expressed in the fetal kidney and liver. It cleaves the interglobular domain of aggrecan, separating the  $\rm G_1$  and  $\rm G_2$  domains. In human breast carcinoma, low expression levels of ADAMTS-15 together with high expression levels of ADAMTS-8 is associated with a greater risk for recurrence and death.

# **REFERENCES**

- Tang, B.L. 2001. ADAMTS: a novel family of extracellular matrix proteases. Int. J. Biochem. Cell Biol. 33: 33-44.
- Cal, S., et al. 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.
- 3. Somerville, R.P., et al. 2003. Characterization of ADAMTS-9 and ADAMTS-20 as a distinct ADAMTS subfamily related to *Caenorhabditis elegans* GON-1. J. Biol. Chem. 278: 9503-9513.
- 4. Llamazares, M., et al. 2003. Identification and characterization of ADAMTS-20 defines a novel subfamily of metalloproteinases-disintegrins with multiple thrombospondin 1 repeats and a unique GON domain. J. Biol. Chem. 278: 13382-13389.
- Porter, S., et al. 2005. ADAMTS-8 and ADAMTS-15 expression predicts survival in human breast carcinoma. Int. J. Cancer 118: 1241-1247.
- 6. Demircan, K., et al. 2005. ADAMTS-9 is synergist-ically induced by interleukin-1 $\beta$  and tumor necrosis factor a in OUMS-27 chondrosarcoma cells and in human chondrocytes. Arthritis Rheum. 52: 1451-1460.
- 7. Sjöblom, T., et al. 2006. The consensus coding sequences of human breast and colorectal cancers. Science 314: 268-274.
- 8. Milner, J.M., et al. 2007. Metallo-proteinase and inhibitor expression profiling of resorbing cartilage reveals pro-collagenase activation as a critical step for collagenolysis. Arthritis Res. Ther. 8: R142.

# CHROMOSOMAL LOCATION

Genetic locus: ADAMTS15 (human) mapping to 11q24.3; Adamts15 (mouse) mapping to 9 A4.

# SOURCE

ADAMTS-15 (C-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of ADAMTS-15 of human origin.

# **RESEARCH USE**

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

#### **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-68441 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## **APPLICATIONS**

ADAMTS-15 (C-16) is recommended for detection of ADAMTS-15 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).

ADAMTS-15 (C-16) is also recommended for detection of ADAMTS-15 in additional species, including bovine and porcine.

Suitable for use as control antibody for ADAMTS-15 siRNA (h): sc-72443, ADAMTS-15 siRNA (m): sc-72444, ADAMTS-15 shRNA Plasmid (h): sc-72443-SH, ADAMTS-15 shRNA Plasmid (m): sc-72444-SH, ADAMTS-15 shRNA (h) Lentiviral Particles: sc-72443-V and ADAMTS-15 shRNA (m) Lentiviral Particles: sc-72444-V.

Molecular Weight of ADAMTS-15: 103 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.

## **PROTOCOLS**

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



Try **ADAMTS-15 (5F3): sc-517041**, our highly recommended monoclonal alternative to ADAMTS-15 (C-16).

**Santa Cruz Biotechnology, Inc.** 1.800.457.3801 831.457.3801 **Europe** +00800 4573 8000 49 6221 4503 0 **www.scbt.com**