SANTA CRUZ BIOTECHNOLOGY, INC.

ADAMTS-15 (Y-16): sc-68444



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 G₁ and G₂ 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

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- 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.
- 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.
- 5. 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 β 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 (Y-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ADAMTS-15 of human origin.

RESEARCH USE

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

PRODUCT

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

Blocking peptide available for competition studies, sc-68444 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ADAMTS-15 (Y-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 (Y-16) is also recommended for detection of ADAMTS-15 in additional species, including equine, canine, 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) Immunofluo-rescence: 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.

MONOS Satisfation Guaranteed

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