SANTA CRUZ BIOTECHNOLOGY, INC.

ADAMTS-3 (C-17): sc-21487

SANTA CRUZ BIOTECHNOLOGY

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. ADAMTS2 and ADAMTS3 are the only two members of the ADAMTS family to have three carboxy-terminal TS domains. ADAMTS genes are primarily expressed in fetal tissues, including the lung, kidney and liver. The human ADAMTS3 gene maps to chromosome 4q13.3 and encodes a protein that catalyzes the excision of the N-propeptide of type II procollagens The ratio of ADAMTS3 to ADAMTS2 mRNA in human cartilage is approximately 5:1.

REFERENCES

1. Nagase, T., et al. 1997. Prediction of the coding sequences of unidentified human genes. VII. The complete sequences of 100 new cDNA clones from brain which can code for large proteins *in vitro*. DNA Res. 4: 141-150.
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. Online Mendelian Inheritance in Man, OMIM™. 2000. Johns Hopkins University, Baltimore, MD. MIM Number: 605011. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
4. Fernandes, R.J., et al. 2001. Procollagen II amino propeptide processing by ADAMTS-3. Insights on dermatosparaxis. J. Biol. Chem. 276: 31502-31509.
5. Tang, B.L. 2001. ADAMTS: a novel family of extracellular matrix proteases. Int. J. Biochem. Cell Biol. 33: 33-44.
6. 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.

CHROMOSOMAL LOCATION

Genetic locus: ADAMTS3 (human) mapping to 4q13.3.

SOURCE

ADAMTS-3 (C-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of ADAMTS-3 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-21487 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

ADAMTS-3 (C-17) is recommended for detection of precursor and mature forms of ADAMTS-3 of 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ADAMTS-3 siRNA (h): sc-41427, ADAMTS-3 shRNA Plasmid (h): sc-41427-SH and ADAMTS-3 shRNA (h) Lentiviral Particles: sc-41427-V.

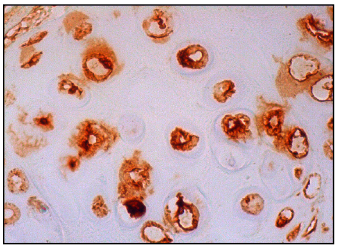
Molecular Weight of ADAMTS-3 precursor: 136 kDa.

Molecular Weight of mature ADAMTS-3: 108 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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



ADAMTS-3 (C-17): sc-21487. Immunoperoxidase staining of formalin fixed, paraffin-embedded human cartilage tissue showing cytoplasmic staining of chondrocytes.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

MONOS Satisfaction Guaranteed

Try **ADAMTS-3 (1H8): sc-517029**, our highly recommended monoclonal alternative to ADAMTS-3 (C-17).