SANTA CRUZ BIOTECHNOLOGY, INC.

ADAMTS-2 (H-4): sc-398556

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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 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 genes are primarily expressed in fetal tissues, including the lung, kidney and liver. ADAMTS-2 cleaves the propeptides of Collagen type I and II, but not Collagen type III, prior to fibril assembly. It may also play a role in development aside from collagen biosynthesis. ADAMTS-2 is secreted and associated with the extracellular matrix, with the highest levels in skin, bone, tendon and aorta. Defects in ADAMTS-2 are the cause of Ehlers-Danlos syndrome type VIIC (EDS VIIC), a recessively inherited connective-tissue disorder characterized clinically by severe skin fragility and joint hypermobility.

REFERENCES

1. 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.
2. Tang, B.L. 2001. ADAMTS: a novel family of extracellular matrix proteases. Int. J. Biochem. Cell Biol. 33: 33-44.
3. Li, S.W., et al. 2001. Transgenic mice with inactive alleles for procollagen N-proteinase (ADAMTS-2) develop fragile skin and male sterility. Biochem. J. 355: 271-278.
4. 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.
5. Wang, W.M., et al. 2003. Transforming growth factor-β induces secretion of activated ADAMTS-2. A procollagen III N-proteinase. J. Biol. Chem. 278: 19549-19557.
6. Colige, A., et al. 2004. Novel types of mutation responsible for the dermatosparactic type of Ehlers-Danlos syndrome (type VIIC) and common polymorphisms in the ADAMTS-2 gene. J. Invest. Dermatol. 123: 656-663.
7. SWISS-PROT/TrEMBL (Q8C9W3). World Wide Web URL: http://www.uniprot.org/uniprot/

CHROMOSOMAL LOCATION

Genetic locus: Adamts2 (mouse) mapping to 11 B1.3.

SOURCE

ADAMTS-2 (H-4) is a mouse monoclonal antibody raised against amino acids 1091-1213 mapping at the C-terminus of ADAMTS-2 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

ADAMTS-2 (H-4) is recommended for detection of ADAMTS-2 of mouse origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

Suitable for use as control antibody for ADAMTS-2 siRNA (m): sc-140864, ADAMTS-2 shRNA Plasmid (m): sc-140864-SH and ADAMTS-2 shRNA (m) Lentiviral Particles: sc-140864-V.

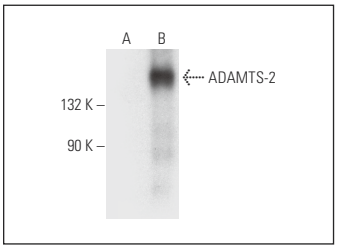
Molecular Weight of ADAMTS-2: 135 kDa.

Positive Controls: ADAMTS-2 (m): 293T Lysate: sc-124925.

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). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



ADAMTS-2 (H-4): sc-398556. Western blot analysis of ADAMTS-2 expression in non-transfected: sc-117752 (**A**) and mouse ADAMTS-2 transfected: sc-124925 (**B**) 293T whole cell lysates.

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.