

# ADAMTS-2 (H-121): sc-134655

## 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 ADAMTS2 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, et al. 2003. Transforming growth factor  $\beta$  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.

## CHROMOSOMAL LOCATION

Genetic locus: ADAMTS2 (human) mapping to 5q35.3; Adamts2 (mouse) mapping to 11 B1.3.

## SOURCE

ADAMTS-2 (H-121) is a rabbit polyclonal antibody raised against amino acids 1091-1211 mapping at the C-terminus of ADAMTS-2 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## RESEARCH USE

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

## APPLICATIONS

ADAMTS-2 (H-121) is recommended for detection of ADAMTS-2 of human and, to a lesser extent, mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

ADAMTS-2 (H-121) is also recommended for detection of ADAMTS-2 in additional species, including porcine.

Suitable for use as control antibody for ADAMTS-2 siRNA (h): sc-91785, ADAMTS-2 siRNA (m): sc-140864, ADAMTS-2 shRNA Plasmid (h): sc-91785-SH, ADAMTS-2 shRNA Plasmid (m): sc-140864-SH, ADAMTS-2 shRNA (h) Lentiviral Particles: sc-91785-V and ADAMTS-2 shRNA (m) Lentiviral Particles: sc-140864-V.

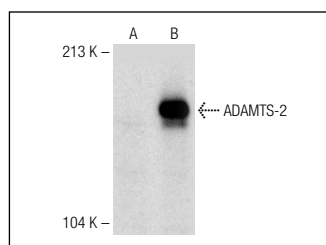
Molecular Weight of ADAMTS-2: 135 kDa.

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

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



ADAMTS-2 (H-121): sc-134655. 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.