



ADAMTS-12 (H-142): sc-25583

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. The human ADAMTS12 gene maps to chromosome 5q35 and encodes a deduced 1,543 amino acid protein that is expressed exclusively in fetal lung. *In vivo*, ADAMTS12 can be expressed as 83 and 120 kDa forms, while *in vitro* expression of ADAMTS12 generates a 175 kDa protein. ADAMTS12 contains eight TS-1 motifs and may play a role in pulmonary cells during fetal development or in tumor processes through its proteolytic activity or as a molecule potentially involved in regulation of cell adhesion.

REFERENCES

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2. Tang, B.L. 2001. ADAMTS: a novel family of extracellular matrix proteases. *Int. J. Biochem. Cell Biol.* 33: 33-44.
3. Cal, S., Obaya, A.J., Llamazares, M., Garabaya, C., Quesada, V., and Lopez-Otin, C. 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.
4. LocusLink Report (LocusID: 81792). <http://www.ncbi.nlm.nih.gov/LocusLink/>
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6. Cal S, Arguelles JM, Fernandez PL, Lopez-Otin C. 2001. Identification, characterization, and intracellular processing of ADAM-TS12, a novel human disintegrin with a complex structural organization involving multiple thrombospondin-1 repeats. *J Biol Chem.* 276: 17932-17940. PMID: 11279086.

SOURCE

ADAMTS-12 (H-142) is a rabbit polyclonal antibody raised against amino acids 1441-1582 of ADAMTS-12 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.

STORAGE

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

APPLICATIONS

ADAMTS-12 (H-142) is recommended for detection of ADAMTS-12 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

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.

RESEARCH USE

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

PROTOCOLS

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