

# ADAMTS-14 (S-20): sc-67435

## 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 pro-peptide 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-14 has a structure that is characteristic of its family and includes four Thrombospondin modules. ADAMTS-14 is most predominantly found in collagen-rich tissue, but can also be found at significant levels in other tissues, such as lung and kidney. ADAMTS-14 may play a major role as a collagen biosynthetic enzyme.

## 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. Online Mendelian Inheritance in Man, OMIM™. 2000. Johns Hopkins University, Baltimore, MD. MIM Number: 605008. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Tang, B.L. 2001. ADAMTS: a novel family of extracellular matrix proteases. *Int. J. Biochem. Cell Biol.* 33: 33-44.
4. 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.
5. Colige, A., Vandenberghe, I., Thiry, M., Lambert, C.A., Van Beeumen, J., Li, S.W., Prockop, D.J., Lapiere, C.M. and Nusgens, B.V. 2002. Cloning and characterization of ADAMTS-14, a novel ADAMTS displaying high homology with ADAMTS-2 and ADAMTS-3. *J. Biol. Chem.* 277: 5756-5766.
6. Kevorkian, L., Young, D.A., Darrach, C., Donell, S.T., Shepstone, L., Porter, S., Brockbank, S.M., Edwards, D.R., Parker, A.E. and Clark, I.M. 2004. Expression profiling of metalloproteinases and their inhibitors in cartilage. *Arthritis Rheum.* 50: 131-141.
7. Goertsches, R., Comabella, M., Navarro, A., Perkal, H. and Montalban, X. 2005. Genetic association between polymorphisms in the ADAMTS-14 gene and multiple sclerosis. *J. Neuroimmunol.* 164: 140-147.
8. Johnston, P., Chojnowski, A.J., Davidson, R.K., Riley, G.P., Donell, S.T. and Clark, I.M. 2007. A complete expression profile of matrix-degrading metalloproteinases in Dupuytren's disease. *J. Hand Surg.* 32: 343-351.
9. LocusLink Report (LocusID: 11173). <http://www.ncbi.nlm.nih.gov/LocusLink/>

## CHROMOSOMAL LOCATION

Genetic locus: ADAMTS14 (human) mapping to 10q22.1; Adamts14 (mouse) mapping to 10 B4.

## STORAGE

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

## SOURCE

ADAMTS-14 (S-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ADAMTS-14 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-67435 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

ADAMTS-14 (S-20) is recommended for detection of ADAMTS-14 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-14 (S-20) is also recommended for detection of ADAMTS-14 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for ADAMTS-14 siRNA (h): sc-61950, ADAMTS-14 siRNA (m): sc-61951, ADAMTS-14 shRNA Plasmid (h): sc-61950-SH, ADAMTS-14 shRNA Plasmid (m): sc-61951-SH, ADAMTS-14 shRNA (h) Lentiviral Particles: sc-61950-V and ADAMTS-14 shRNA (m) Lentiviral Particles: sc-61951-V.

Molecular Weight of ADAMTS-14: 134 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.

## RESEARCH USE

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

## PROTOCOLS

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



Try **ADAMTS-14 (G-8): sc-373773**, our highly recommended monoclonal alternative to ADAMTS-14 (S-20).