# SANTA CRUZ BIOTECHNOLOGY, INC.

# ADAMTS-14 (M-115): sc-50489



# 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-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. Ramamurthy, R.S., et al. 1976. Transport of high risk neonates. Part I: clinical and metabolic observations. IMJ. III. Med. J. 150: 518-521.
- Hurskainen, T. L., et al. 1999. ADAMTS5, ADAMTS6 and ADAMTS7, novel members of a new family of zinc metalloproteases: general features and genomic distribution of the ADAMTS family. J. Biol. Chem. 274: 25555-25563.
- 3. 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.
- Tang, B.L. 2001. ADAMTS: a novel family of extracellular matrix proteases. Int. J. Biochem. Cell Biol. 33: 33-44.
- 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.
- Colige, A., et al. 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.
- 7. Kevorkian, L., et al. 2004. Expression profiling of metalloproteinases and their inhibitors in cartilage. Arthritis Rheum. 50: 131-141.
- 8. Goertsches, R., et al. 2005. Genetic association between polymorphisms in the ADAMTS-14 gene and multiple sclerosis. J. Neuroimmunol. 164: 140-147.

# CHROMOSOMAL LOCATION

Genetic locus: Adamts-14 (mouse) mapping to 10 B4.

# SOURCE

ADAMTS-14 (M-115) is a rabbit polyclonal antibody raised against amino acids 1081-1195 mapping at the C-terminus of ADAMTS-14 of mouse origin.

# PRODUCT

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

# APPLICATIONS

ADAMTS-14 (M-115) is recommended for detection of ADAMTS-14 of mouse and, to a lesser extent, rat 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).

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

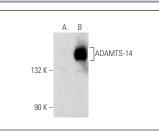
Molecular Weight of ADAMTS-14: 134 kDa.

Positive Controls: ADAMTS-14 (m): 293T Lysate: sc-178254.

# **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-14 (M-115): sc-50489. Western blot analysis of ADAMTS-14 expression in non-transfected: sc-117752 (**A**) and mouse ADAMTS-14 transfected: sc-178254 (**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 or our catalog for detailed protocols and support products.