

ADAMTS-1 (3E4C6B4): sc-47726

BACKGROUND

ADAMTS-1, also known as METH-1, C3-C5 and KIAA1346, and the related protein ADAMTS-8, also known as METH-2 and FLJ41712, represent a new family of proteins with metalloprotease, disintegrin and Thrombospondin domains. ADAMTS-1 and ADAMTS-2 are secreted and proteolytically processed proteins that are 51.7% identical but display different, non-overlapping patterns of expression in tissues and cultured cell lines. Both ADAMTS proteins have been shown to be more active than Thrombospondin-1 or endostatin in preventing angiogenesis in a cornea pocket model, and both may have application for the inhibition of new blood vessel formation in a range of tumor types. The spacer region and the Thrombospondin type I motifs in the carboxy-terminus of ADAMTS-1 are important for anchoring ADAMTS-1 to the extracellular matrix.

REFERENCES

1. Kuno, K., et al. 1997. The exon/intron organization and chromosomal mapping of the mouse ADAMTS-1 gene encoding an ADAM family protein with TSP motifs. *Genomics* 46: 466-471.
2. Kuno, K., et al. 1997. Molecular cloning of a gene encoding a new type of metalloproteinase-disintegrin family protein with Thrombospondin motifs as an inflammation associated gene. *J. Biol. Chem.* 272: 556-562.

CHROMOSOMAL LOCATION

Genetic locus: ADAMTS1 (human) mapping to 21q21.3; Adamts1 (mouse) mapping to 16 C3.3.

SOURCE

ADAMTS-1 (3E4C6B4) is a mouse monoclonal antibody raised against purified recombinant ADAMTS-1 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

ADAMTS-1 (3E4C6B4) is recommended for detection of precursor and mature ADAMTS-1 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)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for ADAMTS-1 siRNA (h): sc-41425, ADAMTS-1 siRNA (m): sc-41426, ADAMTS-1 shRNA Plasmid (h): sc-41425-SH, ADAMTS-1 shRNA Plasmid (m): sc-41426-SH, ADAMTS-1 shRNA (h) Lentiviral Particles: sc-41425-V and ADAMTS-1 shRNA (m) Lentiviral Particles: sc-41426-V.

Molecular Weight of ADAMTS-1 precursor: 110 kDa.

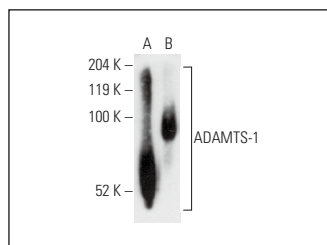
Molecular Weight of mature ADAMTS-1: 85 kDa.

Positive Controls: KNRK whole cell lysate: sc-2214, Caki-1 cell lysate: sc-2224 or A-375 cell lysate: sc-3811.

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-1 (3E4C6B4): sc-47726. Western blot analysis of 65 kDa (A) and 87 kDa (B) unreduced recombinant ADAMTS-1 purified from transfected 293T cells.

SELECT PRODUCT CITATIONS

1. Krstic, D., et al. 2012. Regulated proteolytic processing of Reelin through interplay of tissue plasminogen activator (tPA), ADAMTS-4, ADAMTS-5, and their modulators. *PLoS ONE* 7: e47793.
2. Malek, M.H., et al. 2013. Similar skeletal muscle angiogenic and mitochondrial signalling following 8 weeks of endurance exercise in mice: discontinuous versus continuous training. *Exp. Physiol.* 98: 807-818.
3. Lee, I., et al. 2015. (-)-Epicatechin combined with 8 weeks of treadmill exercise is associated with increased angiogenic and mitochondrial signaling in mice. *Front. Pharmacol.* 6: 43.
4. Buran, T., et al. 2023. Molecular analyses of ADAMTS-1, -4, -5, and IL-17 a cytokine relationship in patients with ulcerative colitis. *BMC Gastroenterol.* 23: 345.

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.