SANTA CRUZ BIOTECHNOLOGY, INC.

ADAMTS-1 (L-16): sc-31080

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The Power to Question

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.
3. Kuno, K. and Matsushima, K. 1998. ADAMTS-1 protein anchors at the extracellular matrix through the thrombospondin type I motifs and its spacing region. J. Biol. Chem. 273: 13912-13917.
4. Kuno, K., et al. 1999. ADAMTS-1 is an active metalloproteinase associated with the extracellular matrix. J. Biol. Chem. 274: 18821-18826.
5. Vazquez, F., et al. 1999. METH-1, a human ortholog of ADAMTS-1, and METH-2 are members of a new family of proteins with angio-inhibitory activity. J. Biol. Chem. 274: 23349-23357.

CHROMOSOMAL LOCATION

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

SOURCE

ADAMTS-1 (L-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of ADAMTS-1 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-31080 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

ADAMTS-1 (L-16) 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), 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-1 (L-16) is also recommended for detection of precursor and mature ADAMTS-1 in additional species, including equine, canine, bovine and porcine.

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, A-375 cell lysate: sc-3811 or ES-2 cell lysate: sc-24674.

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.

SELECT PRODUCT CITATIONS

1. Lu, P., et al. 2008. Protective roles of the fractalkine/CX3CL1-CX3CR1 interactions in alkali-induced corneal neovascularization through enhanced antiangiogenic factor expression. J. Immunol. 180: 4283-4291.
2. Pockert, A.J., et al. 2009. Modified expression of the ADAMTS enzymes and tissue inhibitor of metalloproteinases 3 during human intervertebral disc degeneration. Arthritis Rheum. 60: 482-491.

RESEARCH USE

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