

ADAMTS-10 (V-14): sc-21505

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. Embryogenesis, morphological growth changes, inflammation, tumor invasion and metastasis involve the breakdown and remodeling of the extracellular matrix. This degradation is due to the family of enzymes known as the matrix metalloproteinases (MMPs), which are related to ADAMTS subtypes. 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 ADAMTS10 gene maps to chromosome 19p13.2. The human ADAMTS19 gene maps to chromosome 5q31.

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: 605175. 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., 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.
5. LocusLink Report (LocusID: 11095). <http://www.ncbi.nlm.nih.gov/LocusLink/>

CHROMOSOMAL LOCATION

Genetic locus: ADAMTS10 (human) mapping to 19p13.2; Adamts10 (mouse) mapping to 17 B1.

SOURCE

ADAMTS-10 (V-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of ADAMTS-10 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-21505 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-10 (V-14) is recommended for detection of ADAMTS-10 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-10 (V-14) is also recommended for detection of ADAMTS-10 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for ADAMTS-10 siRNA (h): sc-61863, ADAMTS-10 siRNA (m): sc-61864, ADAMTS-10 shRNA Plasmid (h): sc-61863-SH, ADAMTS-10 shRNA Plasmid (m): sc-61864-SH, ADAMTS-10 shRNA (h) Lentiviral Particles: sc-61863-V and ADAMTS-10 shRNA (m) Lentiviral Particles: sc-61864-V.

Molecular Weight of ADAMTS-10: 130 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.

SELECT PRODUCT CITATIONS

1. Zhao, Y., et al. 2013. Cyp1b1 mediates periostin regulation of trabecular meshwork development by suppression of oxidative stress. *Mol. Cell. Biol.* 33: 4225-4240.

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.