

# Produktinformation



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#### SANTA CRUZ BIOTECHNOLOGY, INC.

# ADAMTS-9 shRNA (h) Lentiviral Particles: sc-45817-V



The Power to Question

#### 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 genes are primarily expressed in fetal tissues, including the lung, kidney and liver. The human ADAMTS9 gene maps to chromosome 3p14.1 and encodes a deduced 1,1471 amino acid protein that is expressed in ovary, pancreas, heart, lung, placenta, adult kidney and fetal tissues. Human chromosome 3p14.1 is a region that is known to contain deletions and rearrangements in renal cell carcinomas, breast cancers, uterine cervical carcinomas and vulvar carcinomas.

#### 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/
- Clark, M.E., Kelner, G.S., Turbeville, L.A., Boyer, A., Arden, K.C. and Maki, R.A. 2000. ADAMTS9, a novel member of the ADAM-TS/metallospondin gene family. Genomics 67: 343-350.
- 4. Tang, B.L. 2001. ADAMTS: a novel family of extracellular matrix proteases. Int. J. Biochem. Cell Biol. 33: 33-44.

#### CHROMOSOMAL LOCATION

Genetic locus: ADAMTS9 (human) mapping to 3p14.1.

#### PRODUCT

ADAMTS-9 shRNA (h) Lentiviral Particles is a pool of concentrated, transduction-ready viral particles containing 3 target-specific constructs that encode 19-25 nt (plus hairpin) shRNA designed to knock down gene expression. Each vial contains 200  $\mu$ l frozen stock containing 1.0 x 10<sup>6</sup> infectious units of virus (IFU) in Dulbecco's Modified Eagle's Medium with 25 mM HEPES pH 7.3. Suitable for 10-20 transductions. Also see ADAMTS-9 siRNA (h): sc-45817 and ADAMTS-9 shRNA Plasmid (h): sc-45817-SH as alternate gene silencing products.

#### **STORAGE**

Store lentiviral particles at  $-80^{\circ}$  C. Stable for at least one year from the date of shipment. Once thawed, particles can be stored at  $4^{\circ}$  C for up to one week. Avoid repeated freeze thaw cycles.

#### **PROTOCOLS**

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

#### APPLICATIONS

ADAMTS-9 shRNA (h) Lentiviral Particles is recommended for the inhibition of ADAMTS-9 expression in human cells.

#### SUPPORT REAGENTS

Control shRNA Lentiviral Particles: sc-108080. Available as 200  $\mu$ l frozen viral stock containing 1.0 x 10<sup>6</sup> infectious units of virus (IFU); contains an shRNA construct encoding a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA.

#### GENE EXPRESSION MONITORING

ADAMTS-9 (C-19): sc-21502 is recommended as a control antibody for monitoring of ADAMTS-9 gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

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) Immunofluo-rescence: use donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

#### **RT-PCR REAGENTS**

Semi-quantitative RT-PCR may be performed to monitor ADAMTS-9 gene expression knockdown using RT-PCR Primer: ADAMTS-9 (h)-PR: sc-45817-PR (20  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

#### BIOSAFETY

Lentiviral particles can be employed in standard Biosafety Level 2 tissue culture facilities (and should be treated with the same level of caution as with any other potentially infectious reagent). Lentiviral particles are replication-incompetent and are designed to self-inactivate after transduction and integration of shRNA constructs into genomic DNA of target cells.

#### **RESEARCH USE**

The purchase of this product conveys to the buyer the nontransferable right to use the purchased amount of the product and all replicates and derivatives for research purposes conducted by the buyer in his laboratory only (whether the buyer is an academic or for-profit entity). The buyer cannot sell or otherwise transfer (a) this product (b) its components or (c) materials made using this product or its components to a third party, or otherwise use this product or its components or materials made using this product or its components for Commercial Purposes.