

ADAMTS-18 (Q-15): sc-67707

BACKGROUND

ADAMTS (a disintegrin and metalloproteinase domain with Thrombospondin 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 1 (TSP 1) motifs. ADAMTS genes are primarily expressed in fetal tissues, including the lung, kidney and liver. ADAMTS-18 is a secreted protein that is also expressed in adult brain, endothelium, prostate and submaxillary gland. ADAMTS-18 has two known splice variants and it is most structurally similar to ADAMTS-16. ADAMTS-18 is downregulated in carcinoma cell lines by methylation of its promoter. Forced expression of ADAMTS-18 in carcinoma cells can lead to significant inhibition of cell growth, suggesting that it plays a significant role as a tumor suppressor.

REFERENCES

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2. Tang, B.L. 2001. ADAMTS: a novel family of extracellular matrix proteases. *Int. J. Biochem. Cell Biol.* 33: 33-44.
3. 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.
4. Nicholson, A.C., et al. 2005. Functional evolution of ADAMTS genes: evidence from analyses of phylogeny and gene organization. *BMC Evol. Biol.* 5: 11.
5. Sjöblom, T., et al. 2006. The consensus coding sequences of human breast and colorectal cancers. *Science* 314: 268-274.
6. Zeng, W., et al. 2006. Glycosaminoglycan-binding properties and aggregase activities of truncated ADAMTSs: comparative analyses with ADAMTS-5, -9, -16 and -18. *Biochim. Biophys. Acta* 1760: 517-524.

CHROMOSOMAL LOCATION

Genetic locus: ADAMTS18 (human) mapping to 16q23; Adamts18 (mouse) mapping to 8 E1.

SOURCE

ADAMTS-18 (Q-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ADAMTS-18 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-67707 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ADAMTS-18 (Q-15) is recommended for detection of ADAMTS-18 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)], 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-18 (Q-15) is also recommended for detection of ADAMTS-18 in additional species, including canine.

Suitable for use as control antibody for ADAMTS-18 siRNA (h): sc-61954, ADAMTS-18 siRNA (m): sc-61955, ADAMTS-18 shRNA Plasmid (h): sc-61954-SH, ADAMTS-18 shRNA Plasmid (m): sc-61955-SH, ADAMTS-18 shRNA (h) Lentiviral Particles: sc-61954-V and ADAMTS-18 shRNA (m) Lentiviral Particles: sc-61955-V.

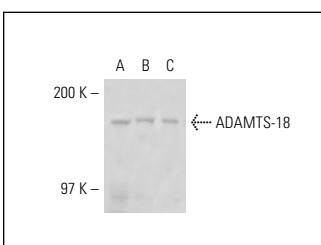
Molecular Weight of ADAMTS-18: 135 kDa.

Positive Controls: ECV304 cell lysate: sc-2269, HUV-EC-C whole cell lysate or PC-3 cell lysate: sc-2220.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



ADAMTS-18 (Q-15): sc-67707. Western blot analysis of ADAMTS-18 expression in ECV304 (A), HUV-EC-C (B) and PC-3 (C) 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.