

ADAMTS-20 (F-16): sc-167047

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 N-terminal propeptide domain, a metalloproteinase domain, a disintegrin-like domain and a C-terminus that contains a varying number of thrombospondin type-1 (TSP-1) motifs. ADAMTS genes are primarily expressed in fetal tissues, including lung, kidney and liver. ADAMTS-20 (ADAM metalloproteinase with thrombospondin type 1 motif, 20), also known as GON-1, is a 1,910 amino acid protein that exists as 2 alternatively spliced isoforms. Encoded by a gene that maps to human chromosome 12q12, ADAMTS-20 contains 15 TSP-1 motifs and binds one zinc ion per subunit. Very sparingly expressed, ADAMTS-20 is detected at low levels in testis, prostate, ovary, heart, placenta, lung and pancreas. Conversely, ADAMTS-20 is overexpressed in several brain, colon and breast carcinomas. ADAMTS-20 may play a role in tissue-remodeling processes.

REFERENCES

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3. Llamazares, M., et al. 2003. Identification and characterization of ADAMTS-20 defines a novel subfamily of metalloproteinases-disintegrins with multiple thrombospondin-1 repeats and a unique GON domain. *J. Biol. Chem.* 278: 13382-13389.
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5. Jones, G.C., et al. 2005. ADAMTS proteinases: a multi-domain, multi-functional family with roles in extracellular matrix turnover and arthritis. *Arthritis Res. Ther.* 7: 160-169.
6. Glasson, S.S., et al. 2005. Deletion of active ADAMTS5 prevents cartilage degradation in a murine model of osteoarthritis. *Nature* 434: 644-648.
7. Mittaz, L., et al. 2005. Neonatal calyceal dilation and renal fibrosis resulting from loss of Adamts-1 in mouse kidney is due to a developmental dysgenesis. *Nephrol. Dial. Transplant.* 20: 419-423.
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CHROMOSOMAL LOCATION

Genetic locus: Adamts20 (mouse) mapping to 15 E3.

STORAGE

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

SOURCE

ADAMTS-20 (F-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ADAMTS-20 of mouse 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-167047 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ADAMTS-20 (F-16) is recommended for detection of ADAMTS-20 of mouse and rat 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); non cross-reactive with other ADAMTS family members.

Suitable for use as control antibody for ADAMTS-20 siRNA (m): sc-140865, ADAMTS-20 shRNA Plasmid (m): sc-140865-SH and ADAMTS-20 shRNA (m) Lentiviral Particles: sc-140865-V.

Molecular Weight of ADAMTS-20: 215 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.

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.