

# ADAMTS-7 (P-16): sc-163642

## 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-7 (ADAM metalloproteinase with thrombospondin type 1 motif, 7), also known as COMPase, is a 1,686 amino acid protein that exists as 2 alternatively spliced isoforms. Encoded by a gene that maps to human chromosome 15q25.1, ADAMTS-7 contains eight TSP-1 motifs and binds one zinc ion per subunit. ADAMTS-7 is expressed in heart, brain, placenta, lung, liver, skeletal muscle, kidney and pancreas. ADAMTS-7 is also located in meniscus, bone, tendon, cartilage, synovium, fat and ligaments, and is up-regulated in articular cartilage and synovium in arthritis patients. ADAMTS-7 functions as a metalloprotease and may play a role in the degradation of COMP. ADAMTS-7 is pH dependent, with optimum pH between 7.5 and 9.5.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: ADAMTS7 (human) mapping to 15q25.1; Adamts7 (mouse) mapping to 9 E3.1.

## STORAGE

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

## SOURCE

ADAMTS-7 (P-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ADAMTS-7 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-163642 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

ADAMTS-7 (P-16) is recommended for detection of ADAMTS-7 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); non cross-reactive with other ADAMTS family members.

ADAMTS-7 (P-16) is also recommended for detection of ADAMTS-7 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for ADAMTS-7 siRNA (h): sc-89955, ADAMTS-7 siRNA (m): sc-140869, ADAMTS-7 shRNA Plasmid (h): sc-89955-SH, ADAMTS-7 shRNA Plasmid (m): sc-140869-SH, ADAMTS-7 shRNA (h) Lentiviral Particles: sc-89955-V and ADAMTS-7 shRNA (m) Lentiviral Particles: sc-140869-V.

Molecular Weight of ADAMTS-7: 180 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 Blotting 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](http://www.scbt.com) or our catalog for detailed protocols and support products.