**BACKGROUND**

ADAMTS (a disintegrin and metalloprotease with thrombospondin motifs) 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-4 (also known as aggrecanase-1) is an 837 amino acid, Zn-metalloprotease that mediates proteolytic degradation of Aggrecan, a major component of cartilage. Aggrecan swells and hydrates the collagen fibril meshwork in cartilage, which confers compressibility and resilience. Degradation of Aggrecan is a factor that contributes to erosion of articular cartilage in arthritic diseases. Traditional matrix metalloproteinases (MMPs) cleave Aggrecan at Asn 341-Phe 342 whereas ADAMTS-4 cleaves at Glu 373-Ala 374. Inhibitors tailored to both MMPs and ADAMTSs may hinder the rate of cartilage degradation in arthritic individuals.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: ADAMTS4 [human] mapping to 1q23.3; Adamts4 [mouse] mapping to 1 H3.

**SOURCE**

ADAMTS-4 (H-74) is a rabbit polyclonal antibody raised against amino acids 764-837 of ADAMTS-4 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.

**STORAGE**

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

**APPLICATIONS**

ADAMTS-4 (H-74) is recommended for detection of ADAMTS-4 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-4 (H-74) is also recommended for detection of ADAMTS-4 in additional species, including equine, canine, bovine and porcine. Suitable for use as control antibody for ADAMTS-4 siRNA (h): sc-41428, ADAMTS-4 siRNA (m): sc-41429, ADAMTS-4 shRNA Plasmid (h): sc-41428-SH, ADAMTS-4 shRNA Plasmid (m): sc-41429-SH, ADAMTS-4 shRNA (h) Lentiviral Particles: sc-41428-V and ADAMTS-4 shRNA (m) Lentiviral Particles: sc-41429-V.

Molecular Weight of ADAMTS-4: 90 kDa.

**RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

**SELECT PRODUCT CITATIONS**


**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.