SANTA CRUZ BIOTECHNOLOGY, INC.

ADAMTS-1 (3C8F4): sc-47727

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

ADAMTS-1, also known as METH-1, C3-C5 and KIAA1346, and the related protein ADAMTS-8, also known as METH-2 and FLJ41712, represent a new family of proteins with metalloprotease, disintegrin and Thrombospondin domains. ADAMTS-1 and ADAMTS-2 are secreted and proteolytically processed proteins that are 51.7% identical but display different, non-overlapping patterns of expression in tissues and cultured celllines. Both ADAMTS proteins have been shown to be more active than Thrombospondin-1 or endostatin in preventing angiogenesis in a cornea pocket model, and both may have application for the inhibition of new blood vessel formation in a range of tumor types. The spacer region and the Thrombospondin type I motifs in the carboxy-terminus of ADAMTS-1 are important for anchoring ADAMTS-1 to the extracellular matrix.

CHROMOSOMAL LOCATION

Genetic locus: ADAMTS1 (human) mapping to 21q21.3; Adamts1 (mouse) mapping to 16 C3.3.

SOURCE

ADAMTS-1 (3C8F4) is a mouse monoclonal antibody raised against purified recombinant ADAMTS-1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ADAMTS-1 (3C8F4) is available conjugated to agarose (sc-47727 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-47727 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-47727 PE), fluorescein (sc-47727 FITC), Alexa Fluor® 488 (sc-47727 AF488), Alexa Fluor® 546 (sc-47727 AF546), Alexa Fluor® 594 (sc-47727 AF594) or Alexa Fluor® 647 (sc-47727 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-47727 AF680) or Alexa Fluor® 790 (sc-47727 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

ADAMTS-1 (3C8F4) is recommended for detection of precursor and mature ADAMTS-1 of mouse, rat and human origin by Western Blotting (non-reducing) (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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for ADAMTS-1 siRNA (h): sc-41425, ADAMTS-1 siRNA (m): sc-41426, ADAMTS-1 shRNA Plasmid (h): sc-41425-SH, ADAMTS-1 shRNA Plasmid (m): sc-41426-SH, ADAMTS-1 shRNA (h) Lentiviral Particles: sc-41425-V and ADAMTS-1 shRNA (m) Lentiviral Particles: sc-41426-V.

Molecular Weight of ADAMTS-1 precursor: 110 kDa.

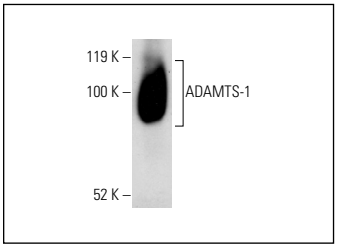
Molecular Weight of mature ADAMTS-1: 85 kDa.

Positive Controls: A-375 cell lysate: sc-3811 or ES-2 cell lysate: sc-24674.

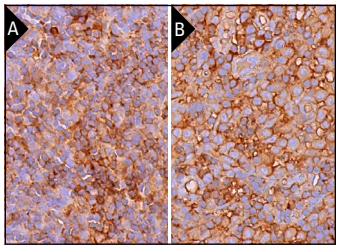
STORAGE

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

DATA



ADAMTS-1 (3C8F4): sc-47727. Western blot analysis of unreduced 87 kDa human recombinant ADAMTS-1 purified from transfected 293T cells.



ADAMTS-1 (3C8F4): sc-47727. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse lymph node tissue showing membrane and cytoplasmic staining of cells in germinal center and cells in non-germinal center (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded rat lymph node tissue showing membrane and cytoplasmic staining of cells in non-germinal center (**B**).

SELECT PRODUCT CITATIONS

1. Hatipoglu, O.F., et al. 2009. ADAMTS-1 is a unique hypoxic early response gene expressed by endothelial cells. J. Biol. Chem. 284: 16325-16333.
2. Sandireddy, R., et al. 2019. Semaphorin 3E/PlexinD1 signaling is required for cardiac ventricular compaction. JCI Insight 4: e125908.
3. Khan, T.N., et al. 2019. Mutations in NCAPG2 cause a severe neurodevelopmental syndrome that expands the phenotypic spectrum of condensinopathies. Am. J. Hum. Genet. 104: 94-111.
4. Zisis, T., et al. 2021. Sequential and switchable patterning for studying cellular processes under spatiotemporal control. ACS Appl. Mater. Interfaces 13: 35545-35560.
5. Abu El-Asrar, A.M., et al. 2022. Differential expression and localization of ADAMTS proteinases in proliferative diabetic retinopathy. Molecules 27: 5977.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

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