

ADAM19 (S-20): sc-25988

BACKGROUND

The ADAM (a disintegrin and metalloprotease) protein family, which includes over 30 membrane-anchored, glycosylated, Zn²⁺ dependent proteases, plays a role in cell-cell and cell-matrix interface related processes, including fertilization, muscle fusion, secretion of TNF α (tumor necrosis factor α), and modulation of the neurogenic function of Notch and Delta. The ADAM proteins possess a signal-domain, a pro-domain, a metalloprotease domain, a disintegrin domain (Integrin ligand), a cysteine-rich region, an epidermal growth factor-like domain, a transmembrane domain and a cytoplasmic tail. ADAMs are expressed in a wide range of mammalian tissues and several are abundantly expressed in the male reproductive tract. Expression of ADAM19, also designated Meltrin- β , is highest in the peripheral nervous system during embryogenesis, but is also apparent in placenta, brain, heart, lung, leukocytes and SW480 cells. ADAM19 also serves as a dendritic cell marker. Truncation of ADAM19 in its cysteine-rich domain is necessary to exert its proteolytic activity on specific substrates, including α 2-macroglobulin.

REFERENCES

1. Wolfsberg, T.G., et al. 1995. ADAM, a novel family of membrane proteins containing a disintegrin and metalloprotease domain: multipotential functions in cell-cell and cell-matrix interactions. *J. Cell Biol.* 131: 275-8.
2. Stone, A.L., et al. 1999. Structure-function analysis of the ADAM family of disintegrin-like and metalloproteinase-containing proteins (review). *J. Protein Chem.* 18: 447-465.
3. Primakoff, P., et al. 2000. The ADAM gene family: surface proteins with adhesion and protease activity. *Trends Genet.* 16: 83-87.
4. Fritsche, J., et al. 2000. Molecular cloning and characterization of a human metalloprotease disintegrin—a novel marker for dendritic cell differentiation. *Blood* 96: 732-739.
5. Zhao, Y.G., et al. 2001. Inhibitory antibodies against endopeptidase activity of human adamalysin 19. *Biochem. Biophys. Res. Commun.* 289: 288-294.

CHROMOSOMAL LOCATION

Genetic locus: ADAM19 (human) mapping to 5q33.3.

SOURCE

ADAM19 (S-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ADAM19 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-25988 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

ADAM19 (S-20) is recommended for detection of ADAM19 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

ADAM19 (S-20) is also recommended for detection of ADAM19 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for ADAM19 siRNA (h): sc-41417, ADAM19 shRNA Plasmid (h): sc-41417-SH and ADAM19 shRNA (h) Lentiviral Particles: sc-41417-V.

Molecular Weight of ADAM19 precursor: 115 kDa.

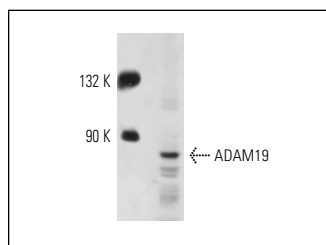
Molecular Weight of mature ADAM19: 87 kDa.

Positive Controls: Daudi + IL-4 cell lysate: sc-2267, ADAM19 (h): 293T Lysate: sc-127937 or NIH/3T3 whole cell lysate: sc-2210.

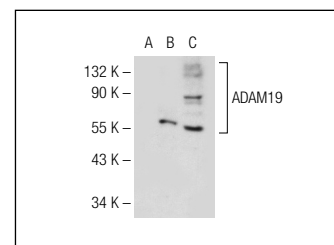
RECOMMENDED SECONDARY REAGENTS

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



ADAM19 (S-20): sc-25988. Western blot analysis of ADAM19 expression in IL-4-treated Daudi whole cell lysate.



ADAM19 (S-20): sc-25988. Western blot analysis of ADAM19 expression in non-transfected 293T: sc-117752 (A), human ADAM19 transfected 293T: sc-127937 (B) and NIH/3T3 (C) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Schirrmester, W., et al. 2009. Ectodomain shedding of E-cadherin and c-Met is induced by Helicobacter pylori infection. *Exp. Cell Res.* 315: 3500-3508.

RESEARCH USE

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