

ADAM20 (H-105): sc-98582

BACKGROUND

The ADAM (a disintegrin and metalloprotease) protein family, which includes more than 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 tumor necrosis factor α (TNF 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. The ADAM20 and ADAM21 genes map to human chromosome 14q24.2, and both are abundantly expressed in testis. Specifically, ADAM21, also designated ADAM31 in mouse, is expressed on four types of specialized epithelia: the cauda epididymis, the vas deferens, the convoluted tubules of the kidney and the parietal cells of the stomach.

REFERENCES

1. Wolfsberg, T.G., Primakoff, P., Myles, D.G. and White, J. M. 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: 275-278.
2. Stone, A.L., Kroeger, M. and Sang, Q.X. 1999. Structure-function analysis of the ADAM family of disintegrin-like and metalloproteinase-containing proteins. *J. Protein Chem.* 18: 447-465.
3. Poindexter, K., Nelson, N., DuBose, R.F., Black, R.A. and Cerretti, D.P. 1999. The identification of seven metalloproteinase-disintegrin (ADAM) genes from genomic libraries. *Gene* 237: 61-70.
4. Liu, L. and Smith, J.W. 2000. Identification of ADAM 31: a protein expressed in Leydig cells and specialized epithelia. *Endocrinology* 141: 2033-2042.
5. Primakoff, P. and Myles, D.G. 2000. The ADAM gene family: surface proteins with adhesion and protease activity. *Trends Genet.* 16: 83-87.

CHROMOSOMAL LOCATION

Genetic locus: ADAM20 (human) mapping to 14q24.2.

SOURCE

ADAM20 (H-105) is a rabbit polyclonal antibody raised against amino acids 241-345 mapping within an internal region of ADAM20 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.

STORAGE

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

APPLICATIONS

ADAM20 (H-105) is recommended for detection of ADAM20 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).

Suitable for use as control antibody for ADAM20 siRNA (h): sc-60046, ADAM20 shRNA Plasmid (h): sc-60046-SH and ADAM20 shRNA (h) Lentiviral Particles: sc-60046-V.

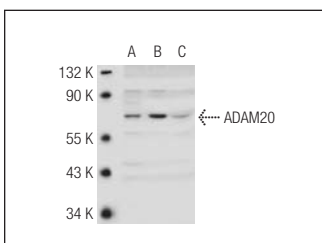
Molecular Weight of ADAM20: 81 kDa.

Positive Controls: ADAM20 (h): 293T Lysate: sc-174537 or HeLa whole cell lysate: sc-2200.

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) with UltraCruz™ Mounting Medium: sc-24941.

DATA



ADAM20 (H-105): sc-98582. Western blot analysis of ADAM20 expression in non-transfected 293T: sc-117752 (A), human ADAM20 transfected 293T: sc-174537 (B) and HeLa (C) whole cell lysates.

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.