

# ADAM7 (M-20): sc-25137

## BACKGROUND

The ADAM (a disintegrin and metalloprotease) protein family, which includes over 30 membrane-anchored, glycosylated, Zn<sup>2+</sup> dependent proteases, plays a role in cell-cell and cell-matrix interface related processes, including fertilization, muscle fusion, secretion of TNF $\alpha$  (tumor necrosis factor  $\alpha$ ), 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. ADAM7, also designated GP-83, binds wheat germ agglutinin (WGA), and is synthesized as a protein and secreted by corpus and cauda epididymus. ADAM7 conjugates to spermatozoa during their transit in human epididymus, and may be involved in sperm maturation.

## 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: 275-278.
2. Vidaeus, C.M., et al. 1997. Human fertilin  $\beta$ : identification, characterization, and chromosomal mapping of an ADAM gene family member. *Mol. Reprod. Dev.* 46: 363-369.
3. 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.
4. Primakoff, P. and Myles, D.G. 2000. The ADAM gene family: surface proteins with adhesion and protease activity. *Trends Genet.* 16: 83-87.
5. Cho, C., et al. 2000. Analysis of mouse fertilin in wild-type and fertilin  $\beta$ -/- sperm: evidence for C-terminal modification,  $\alpha/\beta$  dimerization, and lack of essential role of fertilin  $\alpha$  in sperm-egg fusion. *Dev. Biol.* 222: 289-295.
6. Nishimura, H., et al. 2002. The ADAM1 $\alpha$  and ADAM1 $\beta$  genes, instead of the ADAM1 (fertilin  $\alpha$ ) gene, are localized on mouse chromosome 5. *Gene* 291: 67-76.

## CHROMOSOMAL LOCATION

Genetic locus: Adam7 (mouse) mapping to 14 D2.

## SOURCE

ADAM7 (M-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of ADAM7 of mouse 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-25137 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

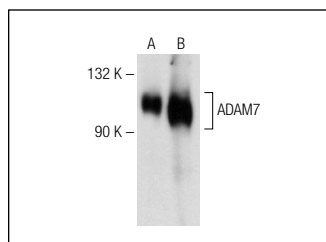
ADAM7 (M-20) is recommended for detection of ADAM7 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 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 ADAM7 siRNA (m): sc-41405, ADAM7 shRNA Plasmid (m): sc-41405-SH and ADAM7 shRNA (m) Lentiviral Particles: sc-41405-V.

Molecular Weight of ADAM7: 108 kDa.

Positive Controls: Mouse epididymus tissue extract or rat epididymus tissue extract.

## DATA



ADAM7 (M-20): sc-25137. Western blot analysis of ADAM7 expression in rat epididymis (A) and mouse epididymis (B) tissue extracts.

## STORAGE

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

## 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.