

ADAM7 (S-19): sc-25135

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. 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 β : 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 β -/- sperm: evidence for C-terminal modification, α/β dimerization, and lack of essential role of fertilin α in sperm-egg fusion. *Dev. Biol.* 222: 289-295.
6. Nishimura, H., et al. 2002. The ADAM1 α and ADAM1 β genes, instead of the ADAM1 (fertilin α) gene, are localized on mouse chromosome 5. *Gene* 291: 67-76.

CHROMOSOMAL LOCATION

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

SOURCE

ADAM7 (S-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ADAM7 of mouse 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-25135 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ADAM7 (S-19) is recommended for detection of ADAM7 of mouse 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 ADAM7 siRNA (m): sc-41405, ADAM7 shRNA Plasmid (m): sc-41405-SH and ADAM7 shRNA (m) Lentiviral Particles: sc-41405-V.

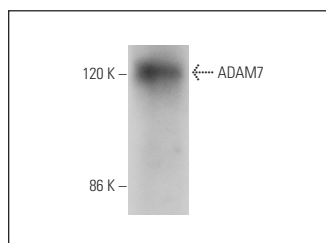
Molecular Weight of ADAM7: 108 kDa.

Positive Controls: mouse epididymus tissue extract.

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



ADAM7 (S-19): sc-25135. Western blot analysis of ADAM7 expression in mouse epididymus tissue extract.

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 or our catalog for detailed protocols and support products.