

ADAM6 (M-145): sc-50487

BACKGROUND

ADAMs (disintegrin and metalloproteinase domain), also known as MDCs (metalloproteinase, disintegrin and cysteine-rich domain) or cellular disintegrins are a family of proteins that are ubiquitously expressed. They catalyze proteolysis, adhesion, fusion and intracellular signaling. ADAMs are membrane-anchored, glycosylated, Zn²⁺-dependent proteases, and there are over 30 different members in the family, with many diverse functions. ADAM1-6 localize to the testis, are developmentally regulated, and are involved in spermatogenesis and sperm-egg binding and fusion. ADAM6 is exclusively expressed in the germ cells of the testis. Evidence has shown that peptides targeting the disintegrin domain of ADAM6 do not disturb spermatogenic cell attachment to Sertoli cell surfaces.

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. Cho, C., et al. 1996. Chromosomal assignment of four testis-expressed mouse genes from a new family of transmembrane proteins (ADAMs) involved in cell-cell adhesion and fusion. *Genomics* 34: 413-417.
3. Yuan, R., et al. 1997. A role for the disintegrin domain of cyritestin, a sperm surface protein belonging to the ADAM family, in mouse sperm-egg plasma membrane adhesion and fusion. *J. Cell Biol.* 137: 105-112.
4. Cornwall, G.A., et al. 1997. ADAM7, a member of the ADAM (a disintegrin and metalloprotease) gene family is specifically expressed in the mouse anterior pituitary and epididymis. *Endocrinology* 138: 4262-4272.
5. Sagane, K., et al. 1998. Metalloproteinase-like, disintegrin-like, cysteine-rich proteins MDC2 and MDC3: novel human cellular disintegrins highly expressed in the brain. *Biochem. J.* 334: 93-98.

CHROMOSOMAL LOCATION

Genetic locus: Adam6a (mouse) mapping to 12 F1, Adam6b (mouse) mapping to 12 F2.

SOURCE

ADAM6 (M-145) is a rabbit polyclonal antibody raised against amino acids 511-655 mapping near the C-terminus of ADAM6A of mouse origin.

PRODUCT

Each vial contains 200 µg 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.

PROTOCOLS

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

APPLICATIONS

ADAM6 (M-145) is recommended for detection of ADAM6A and ADAM6B of mouse and rat origin by Western Blotting (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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ADAM6 siRNA (m): sc-61949, ADAM6 shRNA Plasmid (m): sc-61949-SH and ADAM6 shRNA (m) Lentiviral Particles: sc-61949-V.

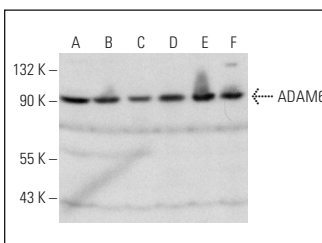
Molecular Weight of ADAM6: 85 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, mouse testis extract: sc-2405 or rat testis extract: sc-2400.

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



ADAM6 (M-145): sc-50487. Western blot analysis of ADAM6 expression in F9 (A), NIH/3T3 (B) and 3T3-L1 (C) whole cell lysates and mouse epididymis (D), mouse testis (E) and rat testis (F) tissue extracts.

SELECT PRODUCT CITATIONS

1. Marcello, M.R., et al. 2011. Lack of tyrosylprotein sulfotransferase-2 activity results in altered sperm-egg interactions and loss of ADAM3 and ADAM6 in epididymal sperm. *J. Biol. Chem.* 286: 13060-13070.

RESEARCH USE

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