

# ADAM5 (C-6): sc-390150

## 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, Zn<sup>2+</sup> 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. ADAM5 is expressed on the sperm surface. The ADAM5 precursor originates in the testis and is processed during epididymal maturation. Evidence suggests that ADAM5 plays a critical role in fertilization through a significant expressional relationship with ADAM 2 and 3.

## REFERENCES

1. 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.
2. 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.
3. 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.
4. Sagane, K., et al. 1999. Cloning and chromosomal mapping of mouse ADAM11, ADAM22 and ADAM23. *Gene* 236: 79-86.
5. Cal, S., et al. 2000. ADAM 23/MDC3, a human disintegrin that promotes cell adhesion via interaction with the  $\alpha v \beta 3$  integrin through an RGD-independent mechanism. *Mol. Biol. Cell* 11: 1457-1469.

## CHROMOSOMAL LOCATION

Genetic locus: Adam5 (mouse) mapping to 8 A2.

## SOURCE

ADAM5 (C-6) is a mouse monoclonal antibody raised against amino acids 501-620 mapping near the C-terminus of ADAM5 of rat origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ADAM5 (C-6) is available conjugated to agarose (sc-390150 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390150 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390150 PE), fluorescein (sc-390150 FITC), Alexa Fluor® 488 (sc-390150 AF488), Alexa Fluor® 546 (sc-390150 AF546), Alexa Fluor® 594 (sc-390150 AF594) or Alexa Fluor® 647 (sc-390150 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390150 AF680) or Alexa Fluor® 790 (sc-390150 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

## APPLICATIONS

ADAM5 (C-6) is recommended for detection of ADAM5 of mouse and rat origin by Western Blotting (starting dilution 1:100, 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 ADAM5 siRNA (m): sc-61947, ADAM5 shRNA Plasmid (m): sc-61947-SH and ADAM5 shRNA (m) Lentiviral Particles: sc-61947-V.

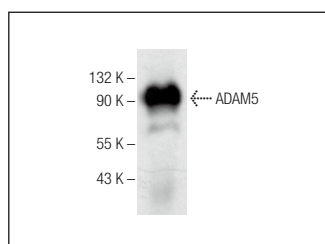
Molecular Weight of ADAM5: 84 kDa.

Positive Controls: rat testis extract: sc-2400.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



ADAM5 (C-6): sc-390150. Western blot analysis of ADAM5 expression in rat testis 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](http://www.scbt.com) for detailed protocols and support products.