

# ADAM28 (A-5): sc-393877

## 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. ADAM28, also designated MDC-L, is more closely related to snake venom metalloproteases (SVMs) than to other ADAM family members. ADAM28 displays a high level of expression in lymphocytes and epididymis, and functions mainly on the cell surface, where it mediates cell adhesion through its binding to integrin  $\alpha 4 \beta 1$ . The gene encoding human ADAM28 maps to chromosome 8p21.2.

## 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. 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.
3. Primakoff, P. and Myles, D.G. 2000. The ADAM gene family: surface proteins with adhesion and protease activity. *Trends Genet.* 16: 83-87.
4. Howard, L., et al. 2000. Cloning and characterization of ADAM28: evidence for autocatalytic pro-domain removal and for cell surface localization of mature ADAM28. *Biochem. J.* 348: 21-27.

## CHROMOSOMAL LOCATION

Genetic locus: ADAM28 (human) mapping to 8p21.2.

## SOURCE

ADAM28 (A-5) is a mouse monoclonal antibody raised against amino acids 366-420 mapping within an internal region of ADAM28 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ADAM28 (A-5) is available conjugated to agarose (sc-393877 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393877 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393877 PE), fluorescein (sc-393877 FITC), Alexa Fluor® 488 (sc-393877 AF488), Alexa Fluor® 546 (sc-393877 AF546), Alexa Fluor® 594 (sc-393877 AF594) or Alexa Fluor® 647 (sc-393877 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393877 AF680) or Alexa Fluor® 790 (sc-393877 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

ADAM28 (A-5) is recommended for detection of ADAM28 of human 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 ADAM28 siRNA (h): sc-105041, ADAM28 shRNA Plasmid (h): sc-105041-SH and ADAM28 shRNA (h) Lentiviral Particles: sc-105041-V.

Molecular Weight of ADAM28 precursor: 102 kDa.

Molecular Weight of mature ADAM28: 85 kDa.

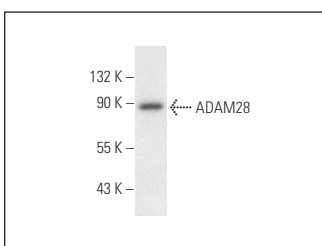
Molecular Weight of cleaved ADAM28: 42 kDa.

Positive Controls: Hs 294T whole cell lysate.

## 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



ADAM28 (A-5): sc-393877. Western blot analysis of ADAM28 expression in Hs 294T whole cell lysate.

## SELECT PRODUCT CITATIONS

1. Zha, Z., et al. 2020. MicroRNA-574-3p inhibits the malignant behavior of liver cancer cells by targeting ADAM28. *Oncol. Lett.* 20: 3015-3023.

## 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.