SANTA CRUZ BIOTECHNOLOGY, INC.

ADAM28 (H-4): sc-514228

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The ADAM (a disintegrin and metalloprotease) protein family, which includes over 30 membrane-anchored, glycosylated, Zn^{2+} dependent proteases, plays a role in cell-cell and cell-matrix interface related processes, including fertilization, muscle fusion, secretion of TNFα (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. ADAM28, also designated MDC-L, is more closely related to snake venom metalloproteases (SVMPs) 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 $\alpha4\beta1$. 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; Adam28 (mouse) mapping to 14 D2.

SOURCE

ADAM28 (H-4) is a mouse monoclonal antibody raised against amino acids 143-307 mapping within an internal region of ADAM28 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_3 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ADAM28 (H-4) is available conjugated to agarose (sc-514228 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-514228 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514228 PE), fluorescein (sc-514228 FITC), Alexa Fluor® 488 (sc-514228 AF488), Alexa Fluor® 546 (sc-514228 AF546), Alexa Fluor® 594 (sc-514228 AF594) or Alexa Fluor® 647 (sc-514228 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514228 AF680) or Alexa Fluor® 790 (sc-514228 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

ADAM28 (H-4) is recommended for detection of ADAM28 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 ADAM28 siRNA (h): sc-105041, ADAM28 siRNA (m): sc-140858, ADAM28 shRNA Plasmid (h): sc-105041-SH, ADAM28 shRNA Plasmid (m): sc-140858-SH, ADAM28 shRNA (h) Lentiviral Particles: sc-105041-V and ADAM28 shRNA (m) Lentiviral Particles: sc-140858-V.

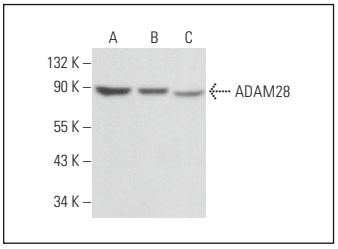
Molecular Weight of ADAM28 precursor: 102 kDa.

Molecular Weight of mature ADAM28: 85 kDa.

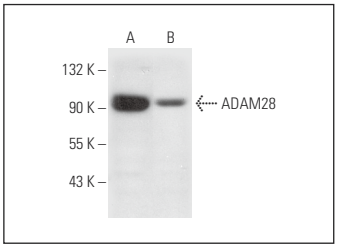
Molecular Weight of cleaved ADAM28: 42 kDa.

Positive Controls: F9 cell lysate: sc-2245, LADMAC whole cell lysate: sc-364189 or SP2/0 whole cell lysate: sc-364795.

DATA



ADAM28 (H-4): sc-514228. Western blot analysis of ADAM28 expression in F9 (**A**), AMJ2-C8 (**B**) and BJAB (**C**) whole cell lysates.



ADAM28 (H-4): sc-514228. Western blot analysis of ADAM28 expression in SP2/0 (**A**) and LADMAC (**B**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Herat, L., et al. 2017. The metalloproteinase ADAM28 promotes metabolic dysfunction in mice. Int. J. Mol. Sci. 18: 884.
2. Wu, Z., et al. 2022. $CD20^+CD22^+ADAM28^+$ B cells in tertiary lymphoid structures promote immunotherapy response. Front. Immunol. 13: 865596.
3. Xie, Y., et al. 2022. LncRNA NEAT1 induces autophagy through the miR-128-3p/ADAM28 axis to suppress apoptosis of nonsmall-cell lung cancer. Kaohsiung J. Med. Sci. 38: 933-949.

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.