SANTA CRUZ BIOTECHNOLOGY, INC.

ADAM28 (L-16): sc-26012

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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

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2. Stone, A.L., Kroeger, M. and Sang, Q.X. 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., Maciewicz, R.A. and Blobel, C.P. 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.
5. Howard, L., Zheng, Y., Horrocks, M., Maciewicz, R.A. and Blobel, C. 2001. Catalytic activity of ADAM28. FEBS Lett. 498: 82-86.
6. Bridges, L.C., Tani, P.H., Hanson, K.R., Roberts, C.M., Judkins, M.B. and Bowditch, R.D. 2002. The lymphocyte metalloprotease MDC-L (ADAM28) is a ligand for the integrin $\alpha4\beta1$. J. Biol. Chem. 277: 3784-3792.
7. Bates, E.E., Fridman, W.H. and Mueller, C.G. 2002. The ADAMDEC1 (decysin) gene structure: evolution by duplication in a metalloprotease gene cluster on chromosome 8p12. Immunogenetics 54: 96-105.

CHROMOSOMAL LOCATION

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

SOURCE

ADAM28 (L-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ADAM28 of human origin.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-26012 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ADAM28 (L-16) is recommended for detection of ADAM28 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

ADAM28 (L-16) is also recommended for detection of ADAM28 in additional species, including equine, canine, bovine and porcine.

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.

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) 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.

SELECT PRODUCT CITATIONS

1. Matsuura, S., Oda, Y., Matono, H., Izumi, T., Yamamoto, H., Tamiya, S., Iwamoto, Y. and Tsuneyoshi, M. 2010. Overexpression of A disintegrin and metalloproteinase 28 is correlated with high histologic grade in conventional chondrosarcoma. Hum. Pathol. 41: 343-351.

RESEARCH USE

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