SANTA CRUZ BIOTECHNOLOGY, INC.

ADAM9 (G-1): sc-377233

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The human ADAM9 gene maps to chromosome 8p11.22 and encodes an 819 amino acid glycoprotein that is present in brain, liver, heart, kidney, lung, and trachea. ADAM (a disintegrin and metalloprotease) glycoproteins are a family of over 30 membrane-anchored, Zn^{2+}-dependent proteases that influence fertilization, muscle fusion, cytokine secretion, modulation of Notch-related neurogenic pathways, monocyte fusion, and many other cell adhesion-dependent events. ADAM proteins contain 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 (TM) domain (alternative splicing before the TM domain in ADAM11, 12, 17, and 28 can yield soluble forms), and a cytoplasmic tail. Removal of the amino-terminal signal peptide initiates secretion from the cell, or anchoring on the cell surface. Furin or furin-like proprotein convertase-dependent cleavage of the pro domain initiates catalytic activity of the metalloprotease.

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. Gilpin, B.J., et al. 1998. A novel, secreted form of human ADAM 12 (meltrin α) provokes myogenesis *in vivo*. J. Biol. Chem. 273: 157-166.

CHROMOSOMAL LOCATION

Genetic locus: ADAM9 (human) mapping to 8p11.22; Adam9 (mouse) mapping to 8 A2.

SOURCE

ADAM9 (G-1) is a mouse monoclonal antibody raised against amino acids 35-94 mapping within an N-terminal extracellular domain of ADAM9 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ADAM9 (G-1) is available conjugated to agarose (sc-377233 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-377233 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377233 PE), fluorescein (sc-377233 FITC), Alexa Fluor® 488 (sc-377233 AF488), Alexa Fluor® 546 (sc-377233 AF546), Alexa Fluor® 594 (sc-377233 AF594) or Alexa Fluor® 647 (sc-377233 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-377233 AF680) or Alexa Fluor® 790 (sc-377233 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

ADAM9 (G-1) is recommended for detection of ADAM9 precursor 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). ADAM9 (G-1) is also recommended for detection of ADAM9 precursor in additional species, including equine.

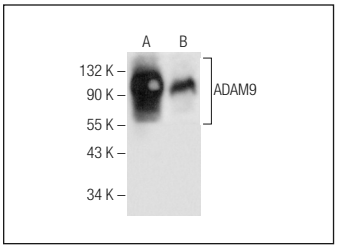
Suitable for use as control antibody for ADAM9 siRNA (h): sc-41408, ADAM9 siRNA (m): sc-41409, ADAM9 shRNA Plasmid (h): sc-41408-SH, ADAM9 shRNA Plasmid (m): sc-41409-SH, ADAM9 shRNA (h) Lentiviral Particles: sc-41408-V and ADAM9 shRNA (m) Lentiviral Particles: sc-41409-V.

Molecular Weight (predicted) of ADAM9 isoform 1/2: 91/72 kDa.

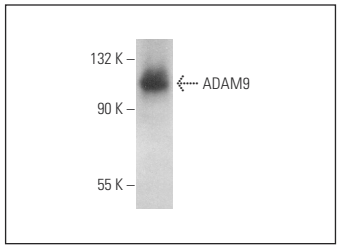
Molecular Weight (observed) of mature/pro ADAM9: 84/105 kDa.

Positive Controls: Caki-1 cell lysate: sc-2224, HeLa whole cell lysate: sc-2200 or A-431 whole cell lysate: sc-2201.

DATA



ADAM9 (G-1): sc-377233. Western blot analysis of ADAM9 expression in Caki-1 (**A**) and HeLa (**B**) whole cell lysates.



ADAM9 (G-1): sc-377233. Western blot analysis of ADAM9 expression in A-431 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Liu, X., et al. 2016. MicroRNA-140 represses glioma growth and metastasis by directly targeting ADAM9. Oncol. Rep. 36: 2329-2338.
2. Yang, X., et al. 2017. MicroRNA-302a suppresses cell proliferation, migration and invasion in osteosarcoma by targeting ADAM9. Mol. Med. Rep. 16: 3565-3572.
3. Ji, T., et al. 2017. MicroRNA-543 inhibits proliferation, invasion and induces apoptosis of glioblastoma cells by directly targeting ADAM9. Mol. Med. Rep. 16: 6419-6427.
4. Jiang, L., et al. 2018. MicroRNA-30a suppresses the proliferation, migration and invasion of human renal cell carcinoma cells by directly targeting ADAM9. Oncol. Lett. 16: 3038-3044.
5. Caporali, S., et al. 2019. miR-126-3p down-regulation contributes to dabrafenib acquired resistance in melanoma by up-regulating ADAM9 and VEGF-A. J. Exp. Clin. Cancer Res. 38: 272.

RESEARCH USE

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