SANTA CRUZ BIOTECHNOLOGY, INC.

ADAM8 (M-80): sc-25577

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

ADAM (a disintegrin and metalloprotease) proteins are a family of over 30 membrane-anchored, glycosylated, Zn^{2+} dependent proteases that are involved in cell-cell, cell-matrix interface related processes including fertilization, muscle fusion, secretion of TNFα and modulation of the neurogenic function of Notch and Delta. 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 brain, testis, epididymis, ovary, breast, placenta, liver, heart, lung, bone and muscle, and catalyze proteolysis, adhesion, fusion and intracellular signaling. ADAM8 (CD156, MS2) is a 824 amino acid protein that contains a 16 amino acid signal peptide, a 637 amino acid extracellular region, a 25 amino acid transmembrane region, and a 146 amino acid cytoplasmic region, which possesses a cytoplasmic consensus Src homology 3 (SH3)-binding domain.

REFERENCES

1. Yoshida, S., et al. 1990. Molecular cloning of cDNA encoding MS2 antigen, a novel cell surface antigen strongly expressed in murine monocytic lineage. Int. Immunol. 2: 585-591.
2. 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.
3. Yoshiyama, K., et al. 1997. CD156 (human ADAM8): expression, primary amino acid sequence, and gene location. Genomics 41: 56-62.
4. 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.
5. Online Mendelian Inheritance in Man, OMIM™. 1999. Johns Hopkins University, Baltimore, MD. MIM Number: 602267. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
6. Primakoff, P. and Myles, D.G. 2000. The ADAM gene family: surface proteins with adhesion and protease activity. Trends Genet. 16: 83-87.

CHROMOSOMAL LOCATION

Genetic locus: Adam8 (mouse) mapping to 7 F4.

SOURCE

ADAM8 (M-80) is a rabbit polyclonal antibody raised against amino acids 1-80 of ADAM8 of mouse origin.

PRODUCT

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

STORAGE

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

APPLICATIONS

ADAM8 (M-80) is recommended for detection of ADAM8 of mouse and rat origin by Western Blotting (starting dilution 1:200, 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 ADAM8 siRNA (m): sc-41407, ADAM8 shRNA Plasmid (m): sc-41407-SH and ADAM8 shRNA (m) Lentiviral Particles: sc-41407-V.

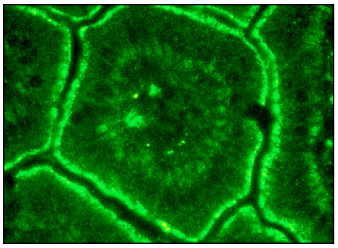
Molecular Weight of ADAM8: 89 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211 or mouse small intestine extract: sc-364252.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



ADAM8 (M-80): sc-25577. Immunofluorescence staining of normal mouse intestine frozen section showing membrane staining.

SELECT PRODUCT CITATIONS

1. Toro, E.J., et al. 2012. Enoxacin directly inhibits osteoclastogenesis without inducing apoptosis. J. Biol. Chem. 287: 17894-17904.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.