SANTA CRUZ BIOTECHNOLOGY, INC.

ADAM8 (P-18): sc-15502



BACKGROUND

ADAM (a disintegrin and metalloprotease) proteins are a family of over 30 membrane-anchored, glycosylated, Zn²⁺ dependent proteases that are involved in cell-cell, cell-matrix interface related processes including fertilization, muscle fusion, secretion of TNF α and modulation of the neurogenic function of Notch and δ . ADAM proteins possess a signal-domain, a pro-domain, a metalloprotease domain, a disintegrin domain (integrin ligand), a cysteinerich 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

- 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.
- 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.
- Yoshiyama, K., et al. 1997. CD156 (human ADAM8): expression, primary amino acid sequence, and gene location. Genomics 41: 56-62.
- 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.
- 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/
- 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 (P-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of ADAM8 of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-15502 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

ADAM8 (P-18) is recommended for detection of ADAM8 of mouse and rat 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).

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.

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) Immunofluores-cence: 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.

DATA



ADAM8 (P-18): sc-15502. Immunofluorescence staining of methanol-fixed RAW 264.7 cells showing membrane localization.

SELECT PRODUCT CITATIONS

- Christophi, G.P., et al. 2008. Modulation of macrophage infiltration and inflammatory activity by the phosphatase SHP-1 in virus-induced demyelinating disease. J. Virol. 83: 522-539.
- Christophi, G.P., et al. 2009. Central neuroinvasion and demyelination by inflammatory macrophages after peripheral virus infection is controlled by SHP-1. Viral Immunol. 22: 371-387.
- Tanaka, T., et al. 2013. Expression and regulation of a disintegrin and metalloproteinase-8 and -17 in development of rat periradicular lesion. J. Endod. 39: 638-642.

STORAGE

Store at 4° C, **D0 NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.