



## ADAM33 (A-19): sc-23388

### BACKGROUND

ADAM33, for a disintegrin and metalloprotease domain 33, is a member of the ADAM protein family. Members of this family are membrane-anchored proteins structurally related to snake venom disintegrins, and have been implicated in a variety of biologic processes involving cell-cell and cell-matrix interactions, including fertilization, muscle development and neurogenesis. Specifically, ADAM33 is a type I transmembrane protein implicated in asthma and bronchial hyperresponsiveness. Alternative splicing of this gene results in two transcript variants encoding different isoforms. ADAM33 is expressed in the mouse adult brain and could play a role in complex processes that require cell-cell communication. The mouse and human predicted proteins consist of 797 and 813 amino acids, respectively, and they share 70% amino acid sequence identity. The mouse ADAM gene exists at a single gene locus, while the human gene, which maps to human chromosome 20p13, consists of 22 exons.

### REFERENCES

1. Van Eerdewegh, P., Little, R.D., Dupuis, J., Del Mastro, R.G., Falls, K., Simon, J., Torrey, D., Pandit, S., McKenny, J., Braunschweiger, K., et al. 2002. Association of the ADAM33 gene with asthma and bronchial hyperresponsiveness. *Nature* 418: 426-430.
2. Shapiro, S.D., and Owen, C.A. 2002. ADAM33 surfaces as an asthma gene. *N. Engl. J. Med.* 347: 936-938.
3. Gunn, T.M., Azarani, A., Kim, P.H., Hyman, R.W., Davis, R.W. and Barsh, G.S. 2002. Identification and preliminary characterization of mouse ADAM33. *BMC Genet.* 3: 2.
4. Yoshinaka, T., Nishii, K., Yamada, K., Sawada, H., Nishiwaki, E., Smith, K., Yoshino, K., Ishiguro, H. and Higashiyama, S. 2002. Identification and characterization of novel mouse and human ADAM33s with potential metalloprotease activity. *Gene* 282: 227-236.
5. LocusLink Report (LocusID: 80332). <http://www.ncbi.nlm.nih.gov/LocusLink/>

### CHROMOSOMAL LOCATION

Genetic locus: Adam33 (mouse) mapping to 2 F1.

### SOURCE

ADAM33 (A-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of ADAM33 of mouse origin.

### 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.

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

### 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-23388 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

ADAM33 (A-19) is recommended for detection of ADAM33 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 ADAM33 siRNA (m): sc-41423.

### 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.