SANTA CRUZ BIOTECHNOLOGY, INC.

ADAM33 (A-3): sc-514055

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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.

CHROMOSOMAL LOCATION

Genetic locus: ADAM33 (human) mapping to 20p13; Adam33 (mouse) mapping to 2 F1.

SOURCE

ADAM33 (A-3) is a mouse monoclonal antibody raised against amino acids 691-813 mapping at the C-terminus of ADAM33 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.

ADAM33 (A-3) is available conjugated to agarose (sc-514055 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-514055 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514055 PE), fluorescein (sc-514055 FITC), Alexa Fluor® 488 (sc-514055 AF488), Alexa Fluor® 546 (sc-514055 AF546), Alexa Fluor® 594 (sc-514055 AF594) or Alexa Fluor® 647 (sc-514055 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514055 AF680) or Alexa Fluor® 790 (sc-514055 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

ADAM33 (A-3) is recommended for detection of ADAM33 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).

Suitable for use as control antibody for ADAM33 siRNA (h): sc-41422, ADAM33 siRNA (m): sc-41423, ADAM33 shRNA Plasmid (h): sc-41422-SH, ADAM33 shRNA Plasmid (m): sc-41423-SH, ADAM33 shRNA (h) Lentiviral Particles: sc-41422-V and ADAM33 shRNA (m) Lentiviral Particles: sc-41423-V.

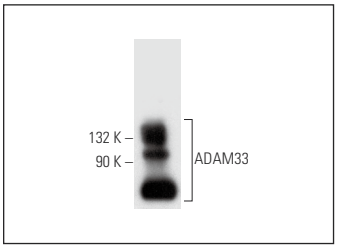
Molecular Weight of ADAM33: 100 kDa.

Positive Controls: human prostate extract: sc-363774 or F9 cell lysate: sc-2245.

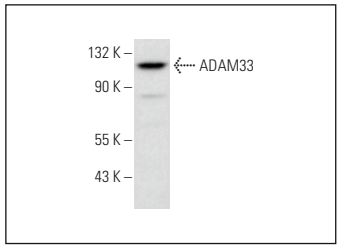
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



ADAM33 (A-3): sc-514055. Western blot analysis of ADAM33 expression in human prostate tissue extract.



ADAM33 (A-3): sc-514055. Western blot analysis of ADAM33 expression in F9 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Fang, L., et al. 2018. TGF-β1 stimulates epithelial-mesenchymal transition mediated by ADAM33. Exp. Ther. Med. 15: 985-992.
2. Wieczfinska, J. and Pawliczak, R. 2022. Relaxin affects airway remodeling genes expression through various signal pathways connected with transcription factors. Int. J. Mol. Sci. 23: 8413.
3. Sobczak, M. and Pawliczak, R. 2022. Does vitamin D work synergistically with anti-asthmatic drugs in airway remodeling? Int. J. Mol. Sci. 23: 12798.

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 for detailed protocols and support products.