SANTA CRUZ BIOTECHNOLOGY, INC.

ADAM12 (H-210): sc-25579

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 TNF (tumor necrosis factor-α), 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. ADAM12 (Meltrin-α) is produced as 2 differentially spliced isoforms, a 718 amino acid secreted form (ADAM12S) and a 881 amino acid membrane-bound form (ADAM12L), and is involved in egg-sperm fusion.

CHROMOSOMAL LOCATION

Genetic locus: ADAM12 (human) mapping to 10q26.2; Adam12 (mouse) mapping to 7 F3.

SOURCE

ADAM12 (H-210) is a rabbit polyclonal antibody raised against amino acids 700-909 of ADAM12 of human 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.

RESEARCH USE

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

APPLICATIONS

ADAM12 (H-210) is recommended for detection of ADAM12 of mouse, rat and human 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), immunohistochemistry (including paraffin-embedded sections) (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 ADAM12 siRNA (h): sc-41414, ADAM12 siRNA (m): sc-41415, ADAM12 shRNA Plasmid (h): sc-41414-SH, ADAM12 shRNA Plasmid (m): sc-41415-SH, ADAM12 shRNA (h) Lentiviral Particles: sc-41414-V and ADAM12 shRNA (m) Lentiviral Particles: sc-41415-V.

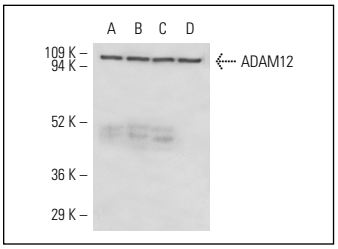
Molecular Weight of ADAM12: 105 kDa.

Positive Controls: F9 cell lysate: sc-2245, Sol8 cell lysate: sc-2249 or JAR cell lysate: sc-2276.

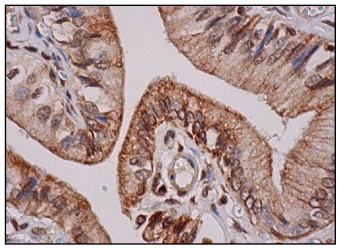
RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



ADAM12 (H-210): sc-25579. Western blot analysis of ADAM12 expression in F9 (**A**), JAR (**B**), Sol8 (**C**) and BT-20 (**D**) whole cell lysates.



ADAM12 (H-210): sc-25579. Immunoperoxidase staining of formalin fixed, paraffin-embedded human gall bladder tissue showing cytoplasmic, membrane and nuclear staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Zhang, L., et al. 2009. Adam12 plays a role during uterine decidualization in mice. Cell Tissue Res. 338: 413-421.
2. Grabowska, I., et al. 2010. Comparison of satellite cell derived myoblasts and C2C12 differentiation in two- and three-dimensional cultures: changes in adhesion protein expression. Cell Biol. Int. 35: 125-133.
3. Clewes, O., et al. 2011. Human epidermal neural crest stem cells (hEPI-NCSC)-characterization and directed differentiation into osteocytes and melanocytes. Stem Cell Rev. 7: 799-814.
4. Toro, E.J., et al. 2012. Enoxacin directly inhibits osteoclastogenesis without inducing apoptosis. J. Biol. Chem. 287: 17894-17904.

PROTOCOLS

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