

# ADAM12 (S-18): sc-16526

## BACKGROUND

ADAM (a disintegrin and metalloprotease) proteins are a family of over 30 membrane-anchored, glycosylated, Zn<sup>2+</sup> dependent proteases that are involved in cell-cell, cell-matrix interface related processes including fertilization, muscle fusion, secretion of TNF $\alpha$  (tumor necrosis factor  $\alpha$ ), 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- $\alpha$ ) is produced as two 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 (S-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ADAM12 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-16526 P, (100  $\mu$ 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

ADAM12 (S-18) 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), 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).

ADAM12 (S-18) is also recommended for detection of ADAM12 in additional species, including equine, canine, bovine, porcine and avian.

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.

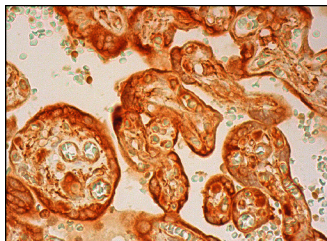
Molecular Weight of ADAM12: 105 kDa.

Positive Controls: BT-20 cell lysate: sc-2223, JAR cell lysate: sc-2276 or F9 cell lysate: sc-2245.

## 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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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<sup>™</sup> Mounting Medium: sc-24941. 3) Immunohistochemistry: use ImmunoCruz<sup>™</sup>: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

## DATA



ADAM12 (S-18): sc-16526. Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing membrane, cytoplasmic and nuclear staining of trophoblastic cells.

## SELECT PRODUCT CITATIONS

1. Roy, R., et al. 2004. ADAM12 cleaves extracellular matrix proteins and correlates with cancer status and stage. J. Biol. Chem. 279: 51323-51330.

## STORAGE

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

## PROTOCOLS

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

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Try **ADAM12 (1G3): sc-293225**, our highly recommended monoclonal alternative to ADAM12 (S-18).