

# ADAM10 (S-20): sc-16523

## 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 (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. ADAM 10 is a TNF-processing enzyme that cleaves pro-TNF, a membrane-bound precursor protein, at Ala76-Val77, which causes membrane shedding of soluble TNF.

## CHROMOSOMAL LOCATION

Genetic locus: ADAM10 (human) mapping to 15q21.3; Adam10 (mouse) mapping to 9 D.

## SOURCE

ADAM10 (S-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ADAM10 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-16523 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

ADAM10 (S-20) is recommended for detection of ADAM10 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

ADAM10 (S-20) is also recommended for detection of ADAM10 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for ADAM10 siRNA (h): sc-41410, ADAM10 siRNA (m): sc-41411, ADAM10 shRNA Plasmid (h): sc-41410-SH, ADAM10 shRNA Plasmid (m): sc-41411-SH, ADAM10 shRNA (h) Lentiviral Particles: sc-41410-V and ADAM10 shRNA (m) Lentiviral Particles: sc-41411-V.

Molecular Weight of ADAM10 precursor: 100 kDa.

Molecular Weight of processed ADAM10: 80 kDa.

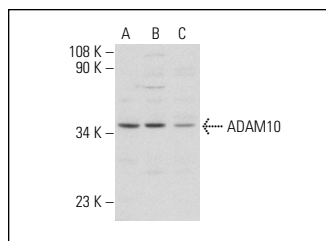
Molecular Weight of active ADAM10: 60 kDa.

Positive Controls: 3T3-L1 cell lysate: sc-2243, NIH/3T3 whole cell lysate: sc-2210 or MH-S whole cell lysate: sc-364785.

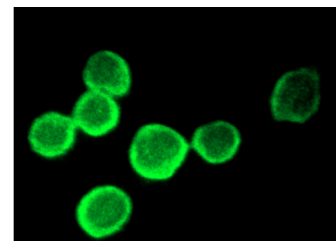
## RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



ADAM10 (S-20): sc-16523. Western blot analysis of ADAM10 expression in MH-S (A), 3T3-L1 (B) and NIH/3T3 (C) whole cell lysates.



ADAM10 (S-20): sc-16523. Immunofluorescence staining of methanol-fixed MH-S cells showing cytoplasmic and nuclear localization.

## SELECT PRODUCT CITATIONS

1. Sutinen, E.M., et al. 2012. Pro-inflammatory interleukin-18 increases Alzheimer's disease-associated amyloid- $\beta$  production in human neuron-like cells. *J. Neuroinflammation* 9: 199.

## 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.



Try **ADAM10 (B-3): sc-28358** or **ADAM10 (A-3): sc-48400**, our highly recommended monoclonal alternatives to ADAM10 (S-20). Also, for AC, HRP, FITC, PE, Alexa Fluor<sup>®</sup> 488 and Alexa Fluor<sup>®</sup> 647 conjugates, see **ADAM10 (B-3): sc-28358**.