

# ADAM10 (H-300): sc-25578

## 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. ADAM10 is a TNF-processing enzyme that cleaves pro-TNF, a membrane-bound precursor protein, at Ala 76-Val 77, 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 (H-300) is a rabbit polyclonal antibody raised against amino acids 1-300 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.

## APPLICATIONS

ADAM10 (H-300) 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 (H-300) is also recommended for detection of ADAM10 in additional species, including 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 active ADAM10: 60 kDa.

Molecular Weight of processed ADAM10: 80 kDa.

Molecular Weight of ADAM10 precursor: 100 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, HeLa whole cell lysate: sc-2200 or U-937 cell lysate: sc-2239.

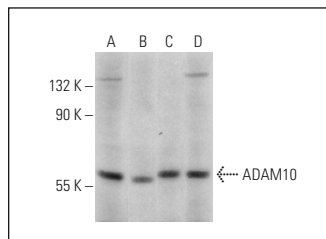
## RESEARCH USE

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

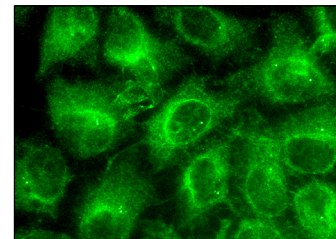
## STORAGE

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

## DATA



ADAM10 (H-300): sc-25578. Western blot analysis of ADAM10 expression in HeLa (A), NIH/3T3 (B), U-937 (C) and Jurkat (D) whole cell lysates.



ADAM10 (H-300): sc-25578. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and membrane localization.

## SELECT PRODUCT CITATIONS

- Gardiner, E.E., et al. 2007. Controlled shedding of platelet glycoprotein (GPIIb/IIIa) and GPIb-IX-V by ADAM family metalloproteinases. *J. Thromb. Haemost.* 5: 1530-1537.
- Oh, S.T., et al. 2008. Overexpression of ADAM10 and ADAM12 in lesional psoriatic skin. *Br. J. Dermatol.* 158: 1371-1373.
- Oh, S.T., et al. 2009. Hair-cycle dependent differential expression of ADAM 10 and ADAM 12: An immunohistochemical analysis in human hair follicles *in situ*. *Dermatoendocrinol.* 1: 46-53.
- Fragkouli, A., et al. 2014. Neuroprotective role of MMP-9 overexpression in the brain of Alzheimer's 5xFAD mice. *Neurobiol Dis.* 70: 179-189.

## 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 (H-300). Also, for AC, HRP, FITC, PE, Alexa Fluor<sup>®</sup> 488 and Alexa Fluor<sup>®</sup> 647 conjugates, see **ADAM10 (B-3): sc-28358**.