

# ADAM15 (M-12): sc-21688

## 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. ADAM 15 (metargidin) is an 814 amino acid plasma membrane protein that contains an RGD tripeptide sequence through which it binds to integrins  $\alpha$ V $\beta$ 3 and  $\alpha$ 5 $\beta$ 1.

## REFERENCES

1. Wolfsberg, T.G., Primakoff, P., Myles, D.G. and White, J.M. 1995. ADAM, a novel family of membrane proteins containing a disintegrin and metalloprotease domain: multipotential functions in cell-cell and cell-matrix interactions. *J. Cell Biol.* 131: 275-278.
2. Kratzschmar, J., Lum, L. and Blobel, C.P. 1996. Metargidin, a membrane-anchored metalloprotease-disintegrin protein with an RGD integrin binding sequence. *J. Biol. Chem.* 271: 4593-4596.
3. Nath, D., Slocombe, P. M., Stephens, P. E., Warn, A., Hutchinson, G.R., Yamada, K.M., Docherty, A.J. and Murphy, G. 1999. Interaction of metargidin (ADAM-15) with  $\alpha$ v $\beta$ 3 and  $\alpha$ 5 $\beta$ 1 integrins on different haemopoietic cells. *J. Cell Sci.* 112: 579-587.
4. Stone, A.L., Kroeger, M. and Sang, Q.X. 1999. Structure-function analysis of the ADAM family of disintegrin-like and metalloproteinase-containing proteins (review). *J. Protein Chem.* 18: 447-465.
5. Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2001. Johns Hopkins University, Baltimore, MD. MIM Number: 605548. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

## CHROMOSOMAL LOCATION

Genetic locus: ADAM15 (human) mapping to 1q22; Adam15 (mouse) mapping to 3 F1.

## SOURCE

ADAM15 (M-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ADAM15 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-21688 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

ADAM15 (M-12) is recommended for detection of ADAM15 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ADAM15 siRNA (h): sc-37057, ADAM15 siRNA (m): sc-41416, ADAM15 shRNA Plasmid (h): sc-37057-SH, ADAM15 shRNA Plasmid (m): sc-41416-SH, ADAM15 shRNA (h) Lentiviral Particles: sc-37057-V and ADAM15 shRNA (m) Lentiviral Particles: sc-41416-V.

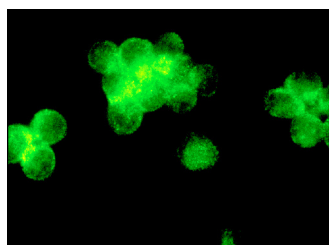
Molecular Weight of ADAM15: 110 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

## 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.

## DATA



ADAM15 (M-12): sc-21688. Immunofluorescence staining of methanol-fixed Jurkat cells showing membrane localization.

## 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.

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Satisfaction  
Guaranteed

Try **ADAM15 (D-5): sc-365752** or **ADAM15 (A-10): sc-514483**, our highly recommended monoclonal alternatives to ADAM15 (M-12).