# SANTA CRUZ BIOTECHNOLOGY, INC.

# ADAM15 (H-60): sc-25580



#### 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 factorlike 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., et al. 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., et al. 1996. Metargidin, a membrane-anchored metalloprotease-disintegrin protein with an RGD integrin binding sequence. J. Biol. Chem. 271: 4593-4596.
- 3. Nath, D., et al. 1999. Interaction of metargidin (ADAM-15) with  $\alpha\nu\beta$ 3 and  $\alpha 5\beta 1$  integrins on different haemopoietic cells. J. Cell Sci. 112: 579-587.
- 4. Stone, A.L., et al. 1999. Structure-function analysis of the ADAM family of disintegrin-like and metalloproteinase-containing proteins (review). J. Protein Chem. 18: 447-465.

#### CHROMOSOMAL LOCATION

Genetic locus: ADAM15 (human) mapping to 1g22; Adam15 (mouse) mapping to 3 F1.

#### SOURCE

ADAM15 (H-60) is a rabbit polyclonal antibody raised against amino acids 561-620 of ADAM15 of human origin.

#### PRODUCT

Each vial contains 200 µg lgG 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.

# PROTOCOLS

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

#### **APPLICATIONS**

ADAM15 (H-60) 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), 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) 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 or HCT-116 whole cell lysate: sc-364175.

# **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<sup>™</sup> compatible goat antirabbit 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<sup>™</sup> Mounting Medium: sc-24941.

#### SELECT PRODUCT CITATIONS

- 1. Tveita, A., et al. 2009. Development of lupus nephritis is associated with qualitative changes in the glomerular collagen IV matrix composition. Lupus 18: 355-360.
- 2. Rybnikova, E., et al. 2012. Differential expression of ADAM15 and ADAM17 metalloproteases in the rat brain after severe hypobaric hypoxia and hypoxic preconditioning. Neurosci. Res. 72: 364-373.

#### **RESEARCH USE**

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

# MONOS Satisfation Guaranteed

Try ADAM15 (D-5): sc-365752 or ADAM15 (A-10): sc-514483, our highly recommended monoclonal alternatives to ADAM15 (H-60).