

# ADRM1 (G-3): sc-374018

## BACKGROUND

ADRM1 (adhesion-regulating molecule 1), also known as GP110, ARM-1 or Rpn13, is a 407 amino acid protein that localizes to both the nucleus and the cytoplasm and is thought to be involved in protein recruitment and cell adhesion. An integral membrane protein, ADRM1 functions to recruit UCH-L5, a deubiquitinating enzyme, to the 26S proteasome, and once at the proteasome it promotes the activity of UCH-L5. Additionally, ADRM1 is thought to mediate lymphocyte adhesion in endothelial cells and may thus play a role in lymphocyte homing. ADRM1 expression is induced by IFN- $\gamma$  in some cancer cell lines and its expression is upregulated in other metastatic cells, suggesting a role in carcinogenesis. Two isoforms of ADRM1 exist due to alternative splicing events.

## REFERENCES

- Shimada, S., et al. 1994. Molecular cloning and characterization of the complementary DNA of an M<sub>r</sub> 110,000 antigen expressed by human gastric carcinoma cells and upregulated by  $\gamma$ -interferon. *Cancer Res.* 54: 3831-3836.
- Simins, A.B., et al. 1999. Functional cloning of ARM-1, an adhesion-regulating molecule upregulated in metastatic tumor cells. *Clin. Exp. Metastasis* 17: 641-648.
- Lamerant, N. and Kieda, C. 2005. Adhesion properties of adhesion-regulating molecule 1 protein on endothelial cells. *FEBS J.* 272: 1833-1844.
- Hamazaki, J., et al. 2006. A novel proteasome interacting protein recruits the deubiquitinating enzyme UCH-37 to 26S proteasomes. *EMBO J.* 25: 4524-4536.
- Qiu, X.B., et al. 2006. hRpn13/ADRM1/GP110 is a novel proteasome subunit that binds the deubiquitinating enzyme, UCH-37. *EMBO J.* 25: 5742-5753.
- Cherix, N., et al. 2006. A Phg2-ADRM1 pathway participates in the nutrient-controlled developmental response in *Dictyostelium*. *Mol. Biol. Cell* 17: 4982-4987.

## CHROMOSOMAL LOCATION

Genetic locus: ADRM1 (human) mapping to 20q13.33; Adrm1 (mouse) mapping to 2 H4.

## SOURCE

ADRM1 (G-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 2-29 at the N-terminus of ADRM1 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-374018 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## STORAGE

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

## APPLICATIONS

ADRM1 (G-3) is recommended for detection of ADRM1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), 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).

Suitable for use as control antibody for ADRM1 siRNA (h): sc-72453, ADRM1 siRNA (m): sc-72454, ADRM1 shRNA Plasmid (h): sc-72453-SH, ADRM1 shRNA Plasmid (m): sc-72454-SH, ADRM1 shRNA (h) Lentiviral Particles: sc-72453-V and ADRM1 shRNA (m) Lentiviral Particles: sc-72454-V.

Molecular Weight of ADRM1 native protein: 50 kDa.

Molecular Weight of ADRM1 posttranslationally modified protein: 42 kDa.

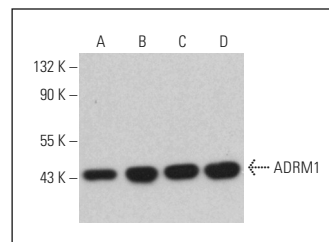
Positive Controls: L6 whole cell lysate: sc-364196, NIH/3T3 whole cell lysate: sc-2210 or SP2/0 whole cell lysate: sc-364795.

## RECOMMENDED SUPPORT REAGENTS

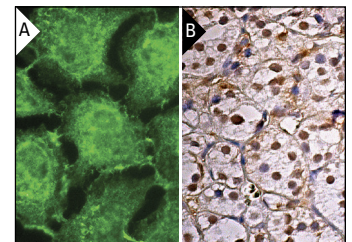
To ensure optimal results, the following support reagents are recommended:

- Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048.
- Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).
- Immunofluorescence: use m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



ADRM1 (G-3): sc-374018. Western blot analysis of ADRM1 expression in Hep G2 (A), NIH/3T3 (B), SP2/0 (C) and L6 (D) whole cell lysates.



ADRM1 (G-3): sc-374018. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane and nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human adrenal gland tissue showing nuclear staining of glandular cells (B).

## 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) for detailed protocols and support products.