SANTA CRUZ BIOTECHNOLOGY, INC.

ARMCX1 (G-5): sc-376291

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The armadillo (ARM) repeat family of proteins are related to the *Drosophila melanogaster* armadillo protein, a protein essential for wingless signal transduction. ARM proteins are involved in a variety of processes such as cell migration, cell proliferation, tissue maintenance and tumorigenesis. They are intracellular proteins that function in signal transduction and cell structure. ARMCX1 (armadillo repeat containing, X-linked 1), also known as ALEX1 (arm protein lost in epithelial cancers, X chromosome, 1), is a 453 amino acid single-pass membrane protein expressed at high levels ovary, heart, testis, prostate, brain, spleen and colon and expressed at very low levels in liver and thymus. Containing three ARM repeats, ARMCX1 may play a role in tumor suppression. ARMCX1 is significantly down-regulated in human lung, prostate, colon, pancreas and ovarian carcinomas.

REFERENCES

1. Loureiro, J., et al. 1998. Roles of Armadillo, a *Drosophila* catenin, during central nervous system development. Curr. Biol. 8: 622-632.
2. Hatzfeld, M. 1999. The armadillo family of structural proteins. Int. Rev. Cytol. 186: 179-224.
3. Kurochkin, I.V., et al. 2001. ALEX1, a novel human armadillo repeat protein that is expressed differentially in normal tissues and carcinomas. Biochem. Biophys. Res. Commun. 280: 340-347.
4. Hsia, N., et al. 2004. DNA microarray analysis of region-specific gene expression in the mouse epididymis. Biol. Reprod. 70: 448-457.
5. Smith, C.A., et al. 2005. Temporal and spatial expression profile of the novel armadillo-related gene, Alex2, during testicular differentiation in the mouse embryo. Dev. Dyn. 233: 188-193.
6. Olsen, J.V., et al. 2006. Global, *in vivo,* and site-specific phosphorylation dynamics in signaling networks. Cell 127: 635-648.

CHROMOSOMAL LOCATION

Genetic locus: ARMCX1 (human) mapping to Xq22.1; Armcx1 (mouse) mapping to X E3.

SOURCE

ARMCX1 (G-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 203-233 within an internal region of ARMCX1 of human origin.

PRODUCT

Each vial contains 200 µg IgM 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-376291 P, (100 µg 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

ARMCX1 (G-5) is recommended for detection of ARMCX1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), 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 ARMCX1 siRNA (h): sc-90942, ARMCX1 siRNA (m): sc-141262, ARMCX1 shRNA Plasmid (h): sc-90942-SH, ARMCX1 shRNA Plasmid (m): sc-141262-SH, ARMCX1 shRNA (h) Lentiviral Particles: sc-90942-V and ARMCX1 shRNA (m) Lentiviral Particles: sc-141262-V.

Molecular Weight (predicted) of ARMCX1: 49 kDa.

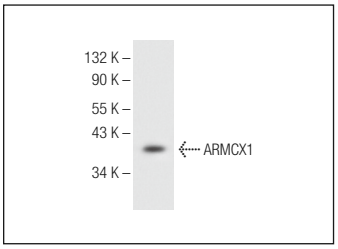
Molecular Weight (observed) of ARMCX1: 42 kDa.

Positive Controls: mouse heart extract: sc-2254.

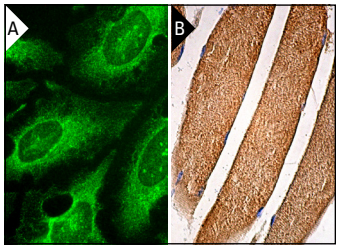
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



ARMCX1 (G-5): sc-376291. Western blot analysis of ARMCX1 expression in mouse heart tissue extract.



ARMCX1 (G-5): sc-376291. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane and cytoplasmic localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human skeletal muscle tissue showing cytoplasmic staining of myocytes (**B**).

RESEARCH USE

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