SANTA CRUZ BIOTECHNOLOGY, INC.

ARMC2 (T-14): sc-109204

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 and function in signal transduction and cell structure. ARMC2 (armadillo repeat containing 2) is a 867 amino acid protein belonging to the armadillo repeat family of proteins. Containing twelve ARM repeats, ARMC2 is encoded by a gene located on human chromosome 6, which contains 170 million base pairs and comprises nearly 6% of the human genome. Deletion of a portion of the q arm of chromosome 6 is associated with early onset intestinal cancer, suggesting the presence of a cancer susceptibility locus. Additionally, Porphyria cutanea tarda, Parkinson's disease, Stickler syndrome and a susceptibility to bipolar disorder are all associated with genes that map to chromosome 6.

REFERENCES

1. Loureiro, J. and Peifer, M. 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. Klymkowsky, M.W. 1999. Plakophilin, armadillo repeats, and nuclear localization. Microsc. Res. Tech. 45: 43-54.
4. McQueen, M.B., et al. 2005. Combined analysis from eleven linkage studies of bipolar disorder provides strong evidence of susceptibility loci on chromosomes 6q and 8q. Am. J. Hum. Genet. 77: 582-595.
5. Coates, J.C., et al. 2006. Armadillo-related proteins promote lateral root development in *Arabidopsis*. Proc. Natl. Acad. Sci. USA 103: 1621-1626.
6. Sakai, T., et al. 2008. Armadillo repeat-containing kinesins and a NIMA-related kinase are required for epidermal-cell morphogenesis in *Arabidopsis*. Plant J. 53: 157-171.
7. Mou, Z., et al. 2009. The armadillo repeat-containing protein, ARMCX3, physically and functionally interacts with the developmental regulatory factor Sox10. J. Biol. Chem. 284: 13629-13640.

CHROMOSOMAL LOCATION

Genetic locus: ARMC2 (human) mapping to 6q21.

SOURCE

ARMC2 (T-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ARMC2 of human origin.

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.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-109204 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ARMC2 (T-14) is recommended for detection of ARMC2 of 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), 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); non cross-reactive with other ARMC family members.

Suitable for use as control antibody for ARMC2 siRNA (h): sc-95368, ARMC2 shRNA Plasmid (h): sc-95368-SH and ARMC2 shRNA (h) Lentiviral Particles: sc-95368-V.

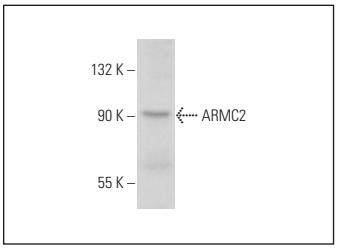
Molecular Weight of ARMC2: 97 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

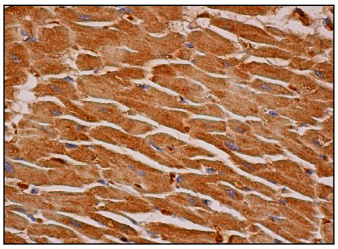
RECOMMENDED SECONDARY REAGENTS

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™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 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™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



ARMC2 (T-14): sc-109204. Western blot analysis of ARMC2 expression in HeLa whole cell lysate.



ARMC2 (T-14): sc-109204. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing cytoplasmic staining of myocytes.

RESEARCH USE

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