SANTA CRUZ BIOTECHNOLOGY, INC.

ARMER (E-8): sc-514227

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

ARMER (apoptotic regulator in the membrane of the endoplasmic reticulum), also known as ADP-ribosylation-like factor 6-interacting protein 1 (ARL6IP1 or AIP1), is a multi-pass membrane protein that belongs to the Ras superfamily. It is expressed in brain, thymus, lung, bone marrow and, to a lesser extent, in spleen, kidney and liver. ARMER is not found in the heart and is found predominantly in early myeloid progenitor cells localizing to the intracytoplasmic membranes. It interacts with ARL6, inhibits caspase-9 activity by inhibiting proteolysis of downstream substrates (including LEHD-AFC, vimentin and caspase-3) and is down-regulated during myeloid differentiation. ARMER may play a role in membrane trafficking, protein transport or cell signaling during hematopoietic maturation.

REFERENCES

1. Nomura, N., et al. 1995. Prediction of the coding sequences of unidentified human genes. II. The coding sequences of new genes (KIAA0041-KIAA0080) deduced by analysis of cDNA clones from human cell line KG-1. DNA Res. 1: 223-229.
2. Ingley, E., et al. 1999. A novel ADP-ribosylation like factor (ARL-6), interacts with the protein-conducting channel SEC61β subunit. FEBS Lett. 459: 69-74.
3. Pettersson, M., et al. 2000. Characterization, chromosomal localization, and expression during hematopoietic differentiation of the gene encoding Arl6ip, ADP-ribosylation-like factor-6 interacting protein (ARL6). Genomics 68: 351-354.
4. Lui, H.M., et al. 2003. ARMER, apoptotic regulator in the membrane of the endoplasmic reticulum, a novel inhibitor of apoptosis. Mol. Cancer Res. 1: 508-518.
5. Schalkwyk, L.C., et al. 2007. Interpretation of knockout experiments: the congenic footprint. Genes Brain Behav. 6: 299-303.

CHROMOSOMAL LOCATION

Genetic locus: ARL6IP1 (human) mapping to 16p12.3; Arl6ip1 (mouse) mapping to 7 F2.

SOURCE

ARMER (E-8) is a mouse monoclonal antibody raised against amino acids 1-115 mapping at the N-terminus of ARMER of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain 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.

RESEARCH USE

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

APPLICATIONS

ARMER (E-8) is recommended for detection of ARMER 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ARMER siRNA (h): sc-61994, ARMER siRNA (m): sc-61995, ARMER shRNA Plasmid (h): sc-61994-SH, ARMER shRNA Plasmid (m): sc-61995-SH, ARMER shRNA (h) Lentiviral Particles: sc-61994-V and ARMER shRNA (m) Lentiviral Particles: sc-61995-V.

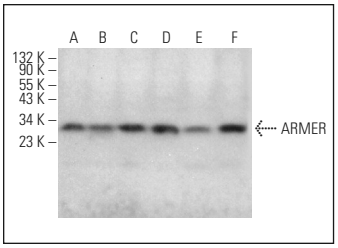
Molecular Weight of ARMER: 23 kDa.

Positive Controls: JAR cell lysate: sc-2276, human lung extract: sc-363767 or Hep G2 cell lysate: sc-2227.

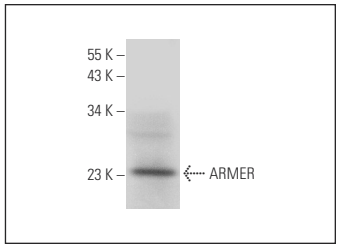
RECOMMENDED SUPPORT REAGENTS

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, 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 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.

DATA



ARMER (E-8): sc-514227. Western blot analysis of ARMER expression in JAR (**A**), Hep G2 (**B**), K-562 (**C**), BYDP (**D**), NIH/3T3 (**E**) and NTERA-2 cl.D1 (**F**) whole cell lysates.



ARMER (E-8): sc-514227. Western blot analysis of ARMER expression in human lung tissue extract.

PROTOCOLS

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