SANTA CRUZ BIOTECHNOLOGY, INC.

ARIH1 (G-5): sc-514552

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

ARIH1 (ariadne homolog), also known as ubiquitin conjugating enzyme E2 binding protein 1, ARI, HARI, HHARI (human homolog of *Drosophila* ariadne), MOP-6 (monocyte protein 6) or UBCH7BP (UBCH7 binding protein), is a 557 amino acid cytoplasmic protein. Expressed in a wide variety of tissues, ARIH1 contains two RING-type zinc fingers and one IBR (in-between RING fingers)-type domain. ARIH1 is believed to be involved in protein degradation and protein translation. ARIH1 interacts with UBCH7 and is thought to function as an E3 ubiquitin-protein ligase (or as a component of an E3 complex) that, characteristic of E3 ligase proteins, accepts ubiquitin (in the form of a thioester) from an E2 ubiquitin-conjugating enzyme (UBCH7) and transfers that ubiquitin residue to substrates targeted for degradation. Specifically, ARIH1 interacts with and polyubiquitylates eIF4E2, thereby targeting it for proteasomal degradation.

REFERENCES

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2. Tan, N.G., et al. 2000. Characterisation of the human and mouse orthologues of the *Drosophila* ariadne gene. Cytogenet. Cell Genet. 90: 242-245.
3. Ardley, H.C., et al. 2001. Features of the parkin/ariadne-like ubiquitin ligase, HHARI, that regulate its interaction with the ubiquitin-conjugating enzyme, Ubch7. J. Biol. Chem. 276: 19640-19647.
4. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 605624. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
5. Tan, N.G., et al. 2003. Human homologue of ariadne promotes the ubiquitylation of translation initiation factor 4E homologous protein, 4EHP. FEBS Lett. 554: 501-504.
6. Capili, A.D., et al. 2004. Structure of the C-terminal RING finger from a RING-IBR-RING/TRIAD motif reveals a novel zinc-binding domain distinct from a RING. J. Mol. Biol. 340: 1117-1129.
7. Okui, M., et al. 2005. Transcription factor single-minded 2 (SIM2) is ubiquitinated by the RING-IBR-RING-type E3 ubiquitin ligases. Exp. Cell Res. 309: 220-228.

CHROMOSOMAL LOCATION

Genetic locus: ARIH1 (human) mapping to 15q24.1; Arih1 (mouse) mapping to 9 B.

SOURCE

ARIH1 (G-5) is a mouse monoclonal antibody raised against amino acids 374-557 mapping at the C-terminus of ARIH1 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.

APPLICATIONS

ARIH1 (G-5) is recommended for detection of ARIH1 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 ARIH1 siRNA (h): sc-90171, ARIH1 siRNA (m): sc-141232, ARIH1 shRNA Plasmid (h): sc-90171-SH, ARIH1 shRNA Plasmid (m): sc-141232-SH, ARIH1 shRNA (h) Lentiviral Particles: sc-90171-V and ARIH1 shRNA (m) Lentiviral Particles: sc-141232-V.

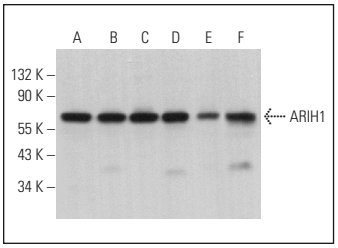
Molecular Weight of ARIH1: 64 kDa.

Positive Controls: CCRF-CEM cell lysate: sc-2225, ALL-SIL whole cell lysate: sc-364356 or Jurkat whole cell lysate: sc-2204.

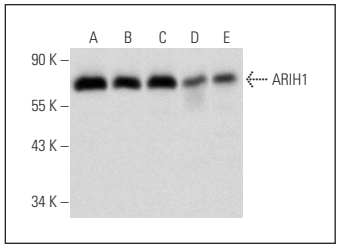
RECOMMENDED SUPPORT REAGENTS

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



ARIH1 (G-5): sc-514552. Western blot analysis of ARIH1 expression in Jurkat (**A**), HEL 92.1.7 (**B**), MOLT-4 (**C**), M1 (**D**) and NIH/3T3 (**E**) whole cell lysates and rat testis tissue extract (**F**).



ARIH1 (G-5): sc-514552. Western blot analysis of ARIH1 expression in ALL-SIL (**A**), Jurkat (**B**), CCRF-CEM (**C**), U-937 (**D**) and BYDP (**E**) whole cell lysates.

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.

PROTOCOLS

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