SANTA CRUZ BIOTECHNOLOGY, INC.

ArgBP2 (B-11): sc-514671

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Arg and c-Abl represent the mammalian members of the Abelson family of non-receptor protein-tyrosine kinases They interact with the Arg/Abl binding proteins (ArgBPs) via SH3 domains present in the carboxy-terminus of the ArgBPs. One member of the Arg/Abl binding protein family, ArgBP2, is expressed in epithelial and cardiac muscle cells. The subcellular localization of ArgBP2 suggests that it functions as an adapter protein in the assembly of signaling complexes in stress fibers and that it is a potential link between Abl family kinases and the Actin cytoskeleton. The human ArgBP2 gene, which maps to chromosome 4, encodes multiple transcripts that yield different isoforms of ArgBP2. Isoforms ArgBP2a and ArgBP2b differ at the 5' end but have the same carboxy-terminal sequence, containing three SH3 domains. Another member of the ArgBP family, nArgBP2, which is specifically expressed in neural tissue, has the carboxy terminal SH3 domains characteristic of Arg/Abl binding proteins, as well as a sorbin homology domain near the N-terminus and a zinc finger motif in the middle region of the protein. nArgBP2 interacts with the proline-rich region of SAPAP via its third SH3 domain. In rat brain, nArgBP2 co-localizes with SAPAP at the synapses of the cerebellum.

REFERENCES

1. Kruh, G.D., et al. 1990. The complete coding sequence of arg defines the Abelson subfamily of cytoplasmic tyrosine kinases. Proc. Natl. Acad. Sci. USA 87: 5802-5806.
2. Wang, B., et al. 1997. ArgBP2, a multiple Src homology 3 domain-containing, Arg/Abl-interacting protein, is phosphorylated in v-Abl-transformed cells and localized in stress fibers and cardiocyte Z-disks. J. Biol. Chem. 272: 17542-17550.

CHROMOSOMAL LOCATION

Genetic locus: SORBS2 (human) mapping to 4q35.1; Sorbs2 (mouse) mapping to 8 B1.1.

SOURCE

ArgBP2 (B-11) is a mouse monoclonal antibody raised against amino acids 1-75 mapping at the N-terminus of ArgBP2 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ArgBP2 (B-11) is available conjugated to agarose (sc-514671 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-514671 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514671 PE), fluorescein (sc-514671 FITC), Alexa Fluor® 488 (sc-514671 AF488), Alexa Fluor® 546 (sc-514671 AF546), Alexa Fluor® 594 (sc-514671 AF594) or Alexa Fluor® 647 (sc-514671 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514671 AF680) or Alexa Fluor® 790 (sc-514671 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

ArgBP2 (B-11) is recommended for detection of ArgBP2 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).

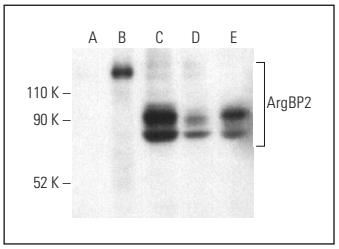
Suitable for use as control antibody for ArgBP2 siRNA (h): sc-40336, ArgBP2 siRNA (m): sc-141193, ArgBP2 shRNA Plasmid (h): sc-40336-SH, ArgBP2 shRNA Plasmid (m): sc-141193-SH, ArgBP2 shRNA (h) Lentiviral Particles: sc-40336-V and ArgBP2 shRNA (m) Lentiviral Particles: sc-141193-V.

Positive Controls: ArgBP2 (h22): 293T Lysate: sc-128033, HeLa whole cell lysate: sc-2200 or Hep G2 cell lysate: sc-2227.

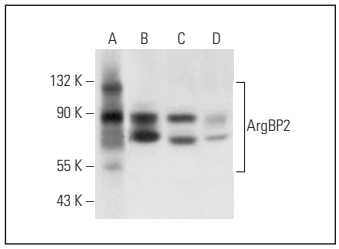
RECOMMENDED SUPPORT REAGENTS

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, UltraCruz® Blocking Reagent: sc-516214 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



ArgBP2 (B-11): sc-514671. Western blot analysis of ArgBP2 expression in non-transfected 293T: sc-117752 (**A**), human ArgBP2 transfected 293T: sc-128033 (**B**), HeLa (**C**), HT-1080 (**D**) and Hep G2 (**E**) whole cell lysates. Detection reagent used: m-IgG_{2a} BP-HRP: sc-542731.



ArgBP2 (B-11): sc-514671. Western blot analysis of ArgBP2 expression in human heart tissue extract (**A**) and HeLa (**B**), Hep G2 (**C**) and MDA-MB-231 (**D**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Morris, T., et al. 2022. Synaptopodin stress fiber and contractomere at the epithelial junction. J. Cell Biol. 221: e202011162.
2. Dan, Y., et al. 2023. Characterization of p38α signaling networks in cancer cells using quantitative proteomics and phosphoproteomics. Mol. Cell. Proteomics 22: 100527.

RESEARCH USE

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