SANTA CRUZ BIOTECHNOLOGY, INC.

BART1 (6): sc-136389

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

ADP-ribosylation factors (ARFs) are important in eukaryotic vesicular trafficking pathways and they play an essential role in the activation of phospholipase D (PC-PLD). ARL2 (ADP-ribosylation factor-like protein 2) functions as a component of a secretory pathway that is involved in the calcium-dependent release of acetylcholine. Additionally, ARL2 plays a role in the folding of tubule proteins, thereby playing an important role in microtubule dynamics and cell cycle progression. BART1 (binder of ARL2 protein 1), also known as ARL2BP (ADP-ribosylation factor-like protein 2-binding protein), is a 163 amino acid protein that interacts with GTP-bound ARL2 complexes and therefore may play a role in modulating ARL2 activity. Though predominantly cytosolic, BART1 can enter the mitochondria and bind the adenine nucleotide transporter when bound to ARL2. There are two isoforms of BART1 that are produced as a result of alternative splicing events.

REFERENCES

1. Sharer, J.D. and Kahn, R.A. 1999. The ARF-like 2 (ARL2)-binding protein, BART. Purification, cloning, and initial characterization. J. Biol. Chem. 274: 27553-27561.
2. Van Valkenburgh, H., et al. 2001. ADP-ribosylation factors (ARFs) and ARF-like 1 (ARL1) have both specific and shared effectors: characterizing ARL1-binding proteins. J. Biol. Chem. 276: 22826-22837.
3. Sharer, J.D., et al. 2002. ARL2 and BART enter mitochondria and bind the adenine nucleotide transporter. Mol. Biol. Cell 13: 71-83.
4. Zhou, C., et al. 2006. ARL2 and ARL3 regulate different microtubule-dependent processes. Mol. Biol. Cell 17: 2476-2487.
5. Bailey, L.K., et al. 2009. ^{1}H, ^{13}C and ^{15}N resonance assignments for binder of ARL2, BART. Biomol. NMR Assign. 3: 33-36.

CHROMOSOMAL LOCATION

Genetic locus: ARL2BP (human) mapping to 16q13; Arl2bp (mouse) mapping to 8 C5.

SOURCE

BART1 (6) is a mouse monoclonal antibody raised against amino acids 22-134 of BART1 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.

BART1 (6) is available conjugated to agarose (sc-136389 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-136389 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-136389 PE), fluorescein (sc-136389 FITC), Alexa Fluor® 488 (sc-136389 AF488), Alexa Fluor® 546 (sc-136389 AF546), Alexa Fluor® 594 (sc-136389 AF594) or Alexa Fluor® 647 (sc-136389 AF647), 200 µg/ml, for IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-136389 AF680) or Alexa Fluor® 790 (sc-136389 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

BART1 (6) is recommended for detection of BART1 of mouse, rat and 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)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for BART1 siRNA (h): sc-93111, BART1 siRNA (m): sc-141469, BART1 shRNA Plasmid (h): sc-93111-SH, BART1 shRNA Plasmid (m): sc-141469-SH, BART1 shRNA (h) Lentiviral Particles: sc-93111-V and BART1 shRNA (m) Lentiviral Particles: sc-141469-V.

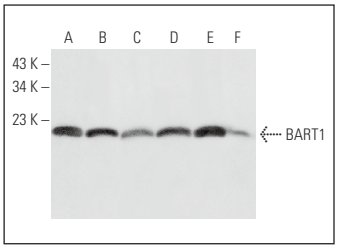
Molecular Weight of BART1: 19 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, MCF7 whole cell lysate: sc-2206 or K-562 whole cell lysate: sc-2203.

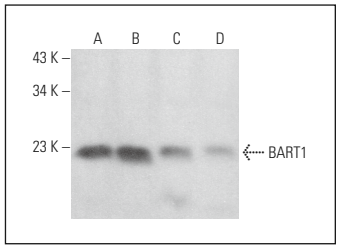
RECOMMENDED SUPPORT REAGENTS

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



BART1 (6): sc-136389. Western blot analysis of BART1 expression in HUV-EC-C (**A**), Y79 (**B**), K-562 (**C**), HeLa (**D**) and MCF7 (**E**) whole cell lysates and human ovary tissue extract (**F**).



BART1 (6): sc-136389. Western blot analysis of BART1 expression in MCF7 (**A**), A549 (**B**), SK-BR-3 (**C**) and BC_3H1 (**D**) 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.