

p41-ARCb (G-16): sc-65169

BACKGROUND

The Arp2/3 (actin-related protein 2/3) complex consists of seven subunits, all of which are actin-related proteins. The complex is involved in the control of actin polymerization and in mediating the formation of branched actin networks. The p41 subunit of Arp2/3 exists in multiple versions which arise due to posttranslational modifications and vary in function depending on cell type or developmental stage. p41-ARCb, also known as ARPC1B (actin-related protein 2/3 complex subunit 1B) or ARC41 (Arp2/3 complex 41 kDa subunit), is a 372 amino acid version of the p41 subunit of the Arp2/3 complex. Localized to the cytoplasm and cytoskeleton, p41-ARCb is involved in regulating the assembly and maintenance of the complex and, unlike the other Arp2/3 subunits, is not primarily involved in actin polymerization.

REFERENCES

1. Welch, M.D., et al. 1997. The human Arp2/3 complex is composed of evolutionarily conserved subunits and is localized to cellular regions of dynamic actin filament assembly. *J. Cell Biol.* 138: 375-384.
2. Zhao, X., et al. 2001. Interactions among subunits of human Arp2/3 complex: p20-ARC as the hub. *Biochem. Biophys. Res. Commun.* 280: 513-517.
3. Kaneda, A., et al. 2002. Reduced expression of the Insulin-induced protein 1 and p41 Arp2/3 complex genes in human gastric cancers. *Int. J. Cancer* 100: 57-62.
4. Vadlamudi, R.K., et al. 2004. p41-ARC subunit of human Arp2/3 complex is a p21-activated kinase-1-interacting substrate. *EMBO Rep.* 5: 154-160.
5. Kaneda, A., et al. 2004. Decreased expression of the seven Arp2/3 complex genes in human gastric cancers. *Cancer Lett.* 212: 203-210.
6. Kumagai, K., et al. 2006. Arpc1b gene is a candidate prediction marker for choroidal malignant melanomas sensitive to radiotherapy. *Invest. Ophthalmol. Vis. Sci.* 47: 2300-2304.

CHROMOSOMAL LOCATION

Genetic locus: ARPC1B (human) mapping to 7q22.1; Arpc1b (mouse) mapping to 5 G2.

SOURCE

p41-ARCb (G-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of p41-ARCb of human origin.

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-65169 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

p41-ARCb (G-16) is recommended for detection of p41-ARCb 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)], 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).

p41-ARCb (G-16) is also recommended for detection of p41-ARCb in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for p41-ARCb siRNA (h): sc-62745, p41-ARCb siRNA (m): sc-62746, p41-ARCb shRNA Plasmid (h): sc-62745-SH, p41-ARCb shRNA Plasmid (m): sc-62746-SH, p41-ARCb shRNA (h) Lentiviral Particles: sc-62745-V and p41-ARCb shRNA (m) Lentiviral Particles: sc-62746-V.

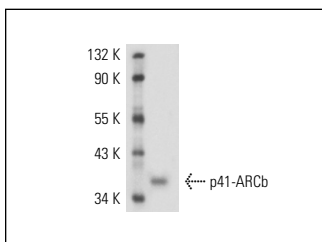
Molecular Weight of p41-ARCb: 41 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, PC-3 cell lysate: sc-2220 or SK-BR-3 cell lysate: sc-2218.

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.

DATA



p41-ARCb (G-16): sc-65169. Western blot analysis of p41-ARCb expression in platelet extract.

RESEARCH USE

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

PROTOCOLS

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