

p21-ARC (h): 293T Lysate: sc-111419

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. p21-ARC, also known as ARPC3 (Actin-related protein 2/3 complex subunit 3) or ARC21 (Arp2/3 complex 21 kDa subunit), is a 178 amino acid Actin-binding component of Arp2/3. Localized to the cytoplasm and cytoskeleton, p21-ARC is thought to interact with p20-ARC and play an important role in the structural integrity of the protein complex.

REFERENCES

1. Welch, M.D., DePace, A.H., Verma, S., Iwamatsu, A. and Mitchison, T.J. 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. Goldberg, D.J., Foley, M.S., Tang, D. and Grabham, P.W. 2000. Recruitment of the Arp2/3 complex and mena for the stimulation of Actin polymerization in growth cones by nerve growth factor. *J. Neurosci. Res.* 60: 458-467.
3. Zhao, X., Yang, Z., Qian, M. and Zhu, X. 2001. Interactions among subunits of human Arp2/3 complex: p20-ARC as the hub. *Biochem. Biophys. Res. Commun.* 280: 513-517.
4. Robinson, R.C., Turbedsky, K., Kaiser, D.A., Marchand, J.B., Higgs, H.N., Choe, S. and Pollard, T.D. 2001. Crystal structure of Arp2/3 complex. *Science* 294: 1679-1684.
5. Beltzner, C.C. and Pollard, T.D. 2004. Identification of functionally important residues of Arp2/3 complex by analysis of homology models from diverse species. *J. Mol. Biol.* 336: 551-565.
6. Dubois, T., Paléotti, O., Mironov, A.A., Fraissier, V., Stradal, T.E., De Matteis, M.A., Franco, M. and Chavrier, P. 2005. Golgi-localized GAP for Cdc42 functions downstream of ARF1 to control Arp2/3 complex and F-Actin dynamics. *Nat. Cell Biol.* 7: 353-364.
7. Yae, K., Keng, V.W., Koike, M., Yusa, K., Kouno, M., Uno, Y., Kondoh, G., Gotow, T., Uchiyama, Y., Horie, K. and Takeda, J. 2006. Sleeping beauty transposon-based phenotypic analysis of mice: lack of ARPC3 results in defective trophoblast outgrowth. *Mol. Cell. Biol.* 26: 6185-6196.

CHROMOSOMAL LOCATION

Genetic locus: ARPC3 (human) mapping to 12q24.11.

PRODUCT

p21-ARC (h): 293T Lysate represents a lysate of human p21-ARC transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

APPLICATIONS

p21-ARC (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive p21-ARC antibodies. Recommended use: 10-20 µl per lane.

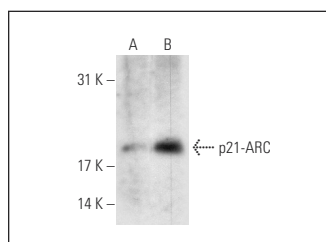
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

p21-ARC (E-7): sc-166630 is recommended as a positive control antibody for Western Blot analysis of enhanced human p21-ARC expression in p21-ARC transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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.

DATA



p21-ARC (E-7): sc-166630. Western blot analysis of p21-ARC expression in non-transfected: sc-117752 (A) and human p21-ARC transfected: sc-111419 (B) 293T whole cell lysates.

PROTOCOLS

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