

p21-ARC (26): sc-136020

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., 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. Goldberg, D.J., et al. 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., et al. 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., et al. 2001. Crystal structure of Arp2/3 complex. *Science* 294: 1679-1684.

CHROMOSOMAL LOCATION

Genetic locus: ARPC3 (human) mapping to 12q24.11; Arpc3 (mouse) mapping to 5 F.

SOURCE

p21-ARC (26) is a mouse monoclonal antibody raised against amino acids 10-118 of p21-ARC of human origin.

PRODUCT

Each vial contains 50 µg IgG₁ in 0.5 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

p21-ARC (26) is recommended for detection of p21-ARC of mouse, rat, human and canine 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 p21-ARC siRNA (h): sc-62731, p21-ARC siRNA (m): sc-62732, p21-ARC shRNA Plasmid (h): sc-62731-SH, p21-ARC shRNA Plasmid (m): sc-62732-SH, p21-ARC shRNA (h) Lentiviral Particles: sc-62731-V and p21-ARC shRNA (m) Lentiviral Particles: sc-62732-V.

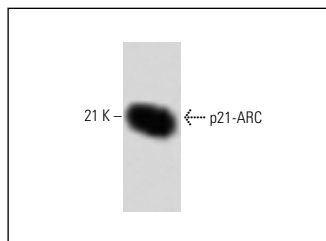
Molecular Weight of p21-ARC: 20 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, 3T3-L1 cell lysate: sc-2243 or K-562 whole cell lysate: sc-2203.

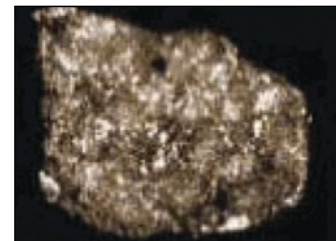
STORAGE

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

DATA



p21-ARC (26): sc-136020. Western blot analysis of p21-ARC expression in HeLa whole cell lysate.



p21-ARC (26): sc-136020. Immunofluorescence staining of HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Frentzas, S., et al. 2016. Vessel co-option mediates resistance to anti-angiogenic therapy in liver metastases. *Nat. Med.* 22: 1294-1302.
2. Zhao, X., et al. 2018. *Ganoderma lucidum* polysaccharide inhibits prostate cancer cell migration via the protein arginine methyltransferase 6 signaling pathway. *Mol. Med. Rep.* 17: 147-157.
3. Li, Z., et al. 2018. Genipin inhibits the growth of human bladder cancer cells via inactivation of PI3K/Akt signaling. *Oncol. Lett.* 15: 2619-2624.
4. Zhu, D., et al. 2018. MicroRNA-1180 is associated with growth and apoptosis in prostate cancer via TNF receptor associated factor 1 expression regulation and nuclear factor-κB signaling pathway activation. *Oncol. Lett.* 15: 4775-4780.
5. Fang, J., et al. 2018. Melatonin prevents senescence of canine adipose-derived mesenchymal stem cells through activating Nrf2 and inhibiting ER stress. *Aging* 10: 2954-2972.
6. Yan, C., et al. 2019. Ubiquitin-specific peptidase 39 regulates the process of proliferation and migration of human ovarian cancer via p53/p21 pathway and EMT. *Med. Oncol.* 36: 95.
7. Wang, Y., et al. 2019. MT1G serves as a tumor suppressor in hepatocellular carcinoma by interacting with p53. *Oncogenesis* 8: 67.

RESEARCH USE

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

PROTOCOLS

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