

p21-ARC (E-7): sc-166630

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.

CHROMOSOMAL LOCATION

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

SOURCE

p21-ARC (E-7) is a mouse monoclonal antibody raised against amino acids 1-178 representing full length p21-ARC of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

p21-ARC (E-7) is available conjugated to agarose (sc-166630 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166630 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166630 PE), fluorescein (sc-166630 FITC), Alexa Fluor® 488 (sc-166630 AF488), Alexa Fluor® 546 (sc-166630 AF546), Alexa Fluor® 594 (sc-166630 AF594) or Alexa Fluor® 647 (sc-166630 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166630 AF680) or Alexa Fluor® 790 (sc-166630 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

p21-ARC (E-7) is recommended for detection of p21-ARC 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

p21-ARC (E-7) is also recommended for detection of p21-ARC in additional species, including equine, canine, bovine and porcine.

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.

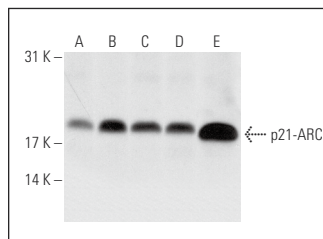
Molecular Weight of p21-ARC: 21 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, NIH/3T3 whole cell lysate: sc-2210 or HeLa whole cell lysate: sc-2200.

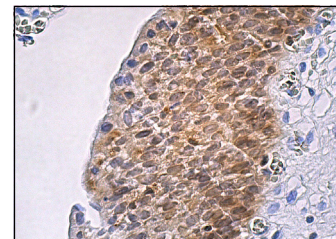
STORAGE

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

DATA



p21-ARC (E-7): sc-166630. Western blot analysis of p21-ARC expression in HeLa (A), SK-BR-3 (B), MCF7 (C), NIH/3T3 (D) and 3611-RF (E) whole cell lysates.



p21-ARC (E-7): sc-166630. Immunoperoxidase staining of formalin fixed, paraffin-embedded human urinary bladder tissue showing cytoplasmic and nuclear staining of urothelial cells.

SELECT PRODUCT CITATIONS

1. Nakagawa, H., et al. 2018. Sodium butyrate induces senescence and inhibits the invasiveness of glioblastoma cells. *Oncol. Lett.* 15: 1495-1502.
2. Qian, L. and Zhu, Y. 2018. Computer-aided drug design and inhibitive effect of a novel nitrogenous heterocyclic compound and its mechanism on glioma U251 cells and breast cancer MCF7 cells. *Drug Des. Dev. Ther.* 12: 1931-1939.
3. Zhang, P., et al. 2019. Hyperglycemia-induced inflamm-aging accelerates gingival senescence via NLR4 phosphorylation. *J. Biol. Chem.* 294: 18807-18819.
4. Choi, J., et al. 2019. Pimozide suppresses cancer cell migration and tumor metastasis through binding to ARPC2, a subunit of the Arp2/3 complex. *Cancer Sci.* 110: 3788-3801.
5. Spencer, W.J., et al. 2019. Photoreceptor disc membranes are formed through an Arp2/3-dependent lamellipodium-like mechanism. *Proc. Natl. Acad. Sci. USA* 116: 27043-27052.
6. Wang, Q., et al. 2020. 25-hydroxyvitamin D₃ positively regulates periodontal inflammaging via SOCS3/STAT signaling in diabetic mice. *Steroids* 156: 108570.
7. Zhang, P., et al. 2021. Hyperglycemia accelerates inflammaging in the gingival epithelium through inflammasomes activation. *J. Periodontal Res.* 56: 667-678.
8. Kumar, D., et al. 2022. Hepatocyte deletion of IGF2 prevents DNA damage and tumor formation in hepatocellular carcinoma. *Adv. Sci.* 9: e2105120.
9. Chou, P.Y., et al. 2023. *Phellinus merillii* extracts induce apoptosis of vascular smooth muscle cells via intrinsic and extrinsic pathways. *Food Sci. Nutr.* 11: 7900-7909.

RESEARCH USE

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