# SANTA CRUZ BIOTECHNOLOGY, INC.

# p20-ARC (T-15): sc-66248



## 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. p20-ARC, also known as ARPC4 (actin-related protein 2/3 complex subunit 4) or ARC20 (Arp2/3 complex 20 kDa subunit), is a 168 amino acid actin-binding component of Arp2/3. Localized to the cytoplasm and cytoskeleton, p20-ARC can, unlike other actin-related proteins, interact with several of the Arp2/3 subunits. This suggests that p20-ARC acts as a hub in the complex and may play a key role in Arp2/3 complex formation. Two isoforms of p20-ARC exist due to alternative splicing events.

# REFERENCES

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- 3. Robinson, R.C., et al. 2001. Crystal structure of Arp2/3 complex. Science 294: 1679-1684.
- Millard, T.H., et al. 2002. Identification and characterisation of a novel human isoform of Arp2/3 complex subunit p16-ARC/ARPC5. Cell Motil. Cytoskeleton 54: 81-90.
- Terasaki, A.G., et al. 2002. Characterization of Arp2/3 complex in chicken tissues. Cell Struct. Funct. 27: 383-391.
- Beltzner, C.C., et al. 2004. Identification of functionally important residues of Arp2/3 complex by analysis of homology models from diverse species. J. Mol. Biol. 336: 551-565.
- 7. Perroud, P.F., et al. 2006. The role of ARPC4 in tip growth and alignment of the polar axis in filaments of *Physcomitrella patens*. Cell Motil. Cytoskeleton 63: 162-171.
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#### CHROMOSOMAL LOCATION

Genetic locus: ARPC4 (human) mapping to 3p25.3; Arpc4 (mouse) mapping to 6 E3.

#### SOURCE

p20-ARC (T-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of p20-ARC of human origin.

#### PRODUCT

Each vial contains 200  $\mu g$  IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-66248 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

#### APPLICATIONS

p20-ARC (T-15) is recommended for detection of p20-ARC of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

p20-ARC (T-15) is also recommended for detection of p20-ARC in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for p20-ARC siRNA (h): sc-62737, p20-ARC siRNA (m): sc-155923, p20-ARC shRNA Plasmid (h): sc-62737-SH, p20-ARC shRNA Plasmid (m): sc-155923-SH, p20-ARC shRNA (h) Lentiviral Particles: sc-62737-V and p20-ARC shRNA (m) Lentiviral Particles: sc-155923-V.

Molecular Weight of p20-ARC: 20 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

#### **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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluo-rescence: 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<sup>™</sup> Mounting Medium: sc-24941.

#### **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 or our catalog for detailed protocols and support products.