

# Arp2 (yV-19): sc-11969

## BACKGROUND

The generation of cortical Actin filaments is necessary for processes such as cell motility and cell polarization. Actin-related proteins Arp2 and Arp3 are essential components of the yeast Actin cytoskeleton that form a complex, which localizes to cortical Actin patches that are required for polarized cell growth. The Arp 2/3 complex is a key factor in the nucleation of Actin filaments in diverse eukaryotic organisms. The highly conserved seven-polypeptide Arp2/3 complex nucleates the assembly of Actin filaments with free barbed ends and also binds the sides of Actin filaments to create a branched network. Barbed-end branching by Arp2/3 quantitatively accounts for polymerization kinetics and for the length correlation of the branches of filaments. The functional antagonism between the Arp2/3 complex and capping proteins is essential in the maintenance of the steady state of Actin assembly and Actin-based motility.

## REFERENCES

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10. Pantaloni, D., Boujemaa, R., Didry, D., Gounon, P. and Carlier, M.F. 2000. The Arp2/3 complex branches filament barbed ends: functional antagonism with capping proteins. *Nat. Cell Biol.* 2: 385-391.

## SOURCE

Arp2 (yV-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Arp2 of *Saccharomyces cerevisiae* 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-11969 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Arp2 (yV-19) is recommended for detection of Arp2 of *Saccharomyces cerevisiae* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

## 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.

## SELECT PRODUCT CITATIONS

1. Hetrick, B., Han, M.S., Helgeson, L.A. and Nolen, B.J. 2013. Small molecules CK-666 and CK-869 inhibit actin-related protein 2/3 complex by blocking an activating conformational change. *Chem. Biol.* 20: 701-712.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.