

**KD-Validated Anti-Arp3 Rabbit Monoclonal Antibody**  
Rabbit monoclonal antibody  
Catalog # AGI2347**Specification****KD-Validated Anti-Arp3 Rabbit Monoclonal Antibody - Product Information**

Application	WB, FC, ICC
Primary Accession	<a href="#">P61158</a>
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Calculated MW	Predicted, 47 kDa; Observed, 47 kDa KDa
Gene Name	ACTR3
Aliases	ACTR3; Actin Related Protein 3; ARP3; ARP3 Actin Related Protein 3 Homolog; Actin-Related Protein 3; Actin-Like Protein 3; ARP3 (Actin-Related Protein 3, Yeast) Homolog; ARP3 Actin-Related Protein 3 Homolog (Yeast)
Immunogen	A synthesized peptide derived from human ACTR3

**KD-Validated Anti-Arp3 Rabbit Monoclonal Antibody - Additional Information****Gene ID** 10096**Other Names**

Actin-related protein 3, Actin-like protein 3, ACTR3, ARP3

**KD-Validated Anti-Arp3 Rabbit Monoclonal Antibody - Protein Information****Name** ACTR3**Synonyms** ARP3**Function**

ATP-binding component of the Arp2/3 complex, a multiprotein complex that mediates actin polymerization upon stimulation by nucleation-promoting factor (NPF) (PubMed:<a href="http://www.uniprot.org/citations/9000076" target="\_blank">9000076</a>). The Arp2/3 complex mediates the formation of branched actin networks in the cytoplasm, providing the force for cell motility (PubMed:<a href="http://www.uniprot.org/citations/9000076" target="\_blank">9000076</a>). Seems to contact the pointed end of the daughter actin filament (PubMed:<a href="http://www.uniprot.org/citations/9000076" target="\_blank">9000076</a>). In podocytes, required for the formation of lamellipodia downstream of AVIL and PLCE1 regulation (PubMed:<a href="http://www.uniprot.org/citations/29058690" target="\_blank">29058690</a>). In addition to its role in the cytoplasmic cytoskeleton, the Arp2/3 complex also promotes actin polymerization in the nucleus, thereby regulating gene transcription and repair of damaged DNA (PubMed:<a href="http://www.uniprot.org/citations/17220302" target="\_blank">17220302</a>, PubMed:<a href="http://www.uniprot.org/citations/29925947" target="\_blank">29925947</a>).

The Arp2/3 complex promotes homologous recombination (HR) repair in response to DNA damage by promoting nuclear actin polymerization, leading to drive motility of double-strand breaks (DSBs) (PubMed:<a href="http://www.uniprot.org/citations/29925947" target="\_blank">29925947</a>). Plays a role in ciliogenesis (PubMed:<a href="http://www.uniprot.org/citations/20393563" target="\_blank">20393563</a>).

#### Cellular Location

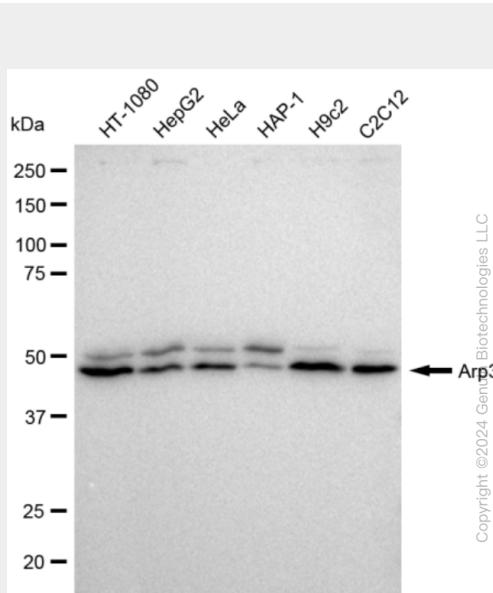
Cytoplasm, cytoskeleton. Cell projection. Nucleus. Note=In pre- apoptotic cells, colocalizes with MEFV in large specks (pyroptosomes) (PubMed:19109554)

#### KD-Validated Anti-Arp3 Rabbit Monoclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

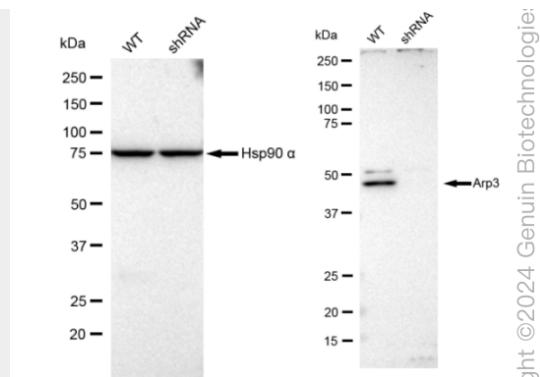
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### KD-Validated Anti-Arp3 Rabbit Monoclonal Antibody - Images



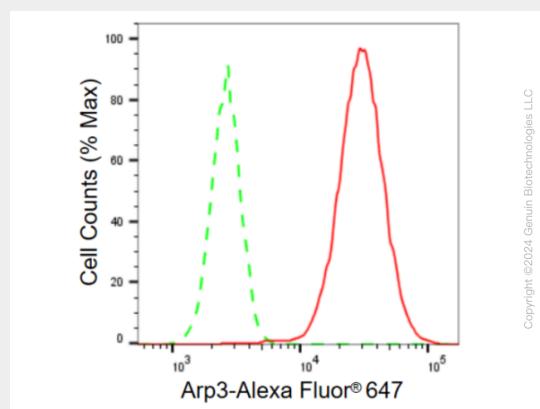
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Western blotting analysis using anti-Arp3 antibody (Cat#AGI2347). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-Arp3 antibody (Cat#AGI2347, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



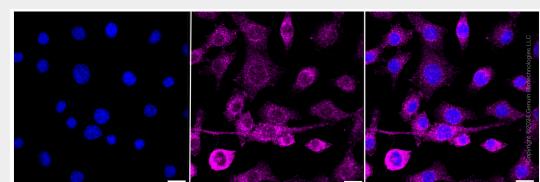
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Western blotting analysis using anti-Arp3 antibody (Cat#AGI2347). Arp3 expression in wild type (WT) and Arp3 shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. Hsp90  $\alpha$  serves as a loading control. The blot was incubated with anti-Arp3 antibody (Cat#AGI2347, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



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Flow cytometric analysis of Arp3 expression in C2C12 cells using Arp3 antibody (Cat#AGI2347, 1:2,000). Green, isotype control; red, Arp3.



Immunocytochemical staining of C2C12 cells with Arp3 antibody (Cat#AGI2347, 1:1,000). Nuclei were stained blue with DAPI; Arp3 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20  $\mu$ m.