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KD-Validated Anti-Arp2 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI2297

Specification

KD-Validated Anti-Arp2 Rabbit Monoclonal Antibody - Product Information

Application	**WB, FC, ICC**
Primary Accession	P61160
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 45 kDa, observed, 37 kDa KDa**
Gene Name	**ACTR2**
Aliases	**ACTR2; Actin Related Protein 2; ARP2; ARP2 Actin Related Protein 2 Homolog; Actin-Related Protein 2; Actin-Like Protein 2; ARP2 (Actin-Related Protein 2, Yeast) Homolog; ARP2 Actin-Related Protein 2 Homolog (Yeast)**
Immunogen	**A synthesized peptide derived from human Arp2**

KD-Validated Anti-Arp2 Rabbit Monoclonal Antibody - Additional Information

Gene ID	**10097**

Other Names
Actin-related protein 2, Actin-like protein 2, ACTR2, ARP2

KD-Validated Anti-Arp2 Rabbit Monoclonal Antibody - Protein Information

Name ACTR2

Synonyms ARP2

Function
ATP-binding component of the Arp2/3 complex, a multiprotein complex that mediates actin polymerization upon stimulation by nucleation-promoting factor (NPF) (PubMed:9000076). The Arp2/3 complex mediates the formation of branched actin networks in the cytoplasm, providing the force for cell motility (PubMed:9000076). Seems to contact the pointed end of the daughter actin filament (PubMed:9000076). In podocytes, required for the formation of lamellipodia downstream of AVIL and PLCE1 regulation (PubMed:29058690). 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:17220302, PubMed:29925947).

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:29925947).

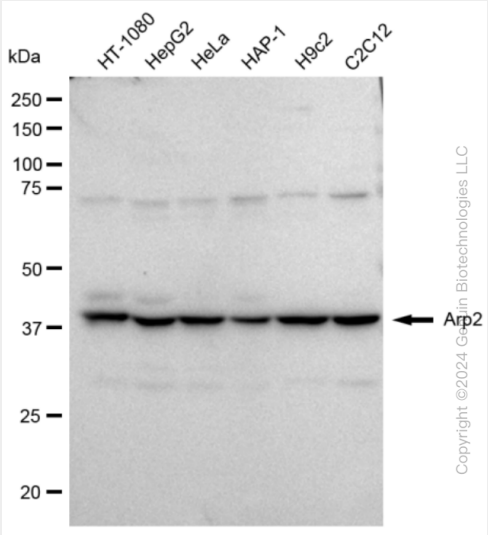
Cellular Location
Cytoplasm, cytoskeleton. Cell projection. Nucleus

KD-Validated Anti-Arp2 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 Cytomety
- Cell Culture

KD-Validated Anti-Arp2 Rabbit Monoclonal Antibody - Images



Western blotting analysis using anti-Arp2 antibody (Cat#AGI2297). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-Arp2 antibody (Cat#AGI2297, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.

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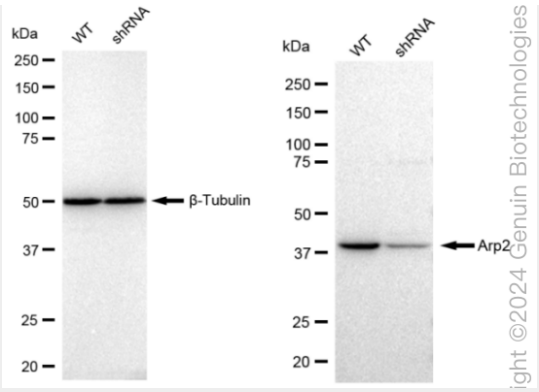
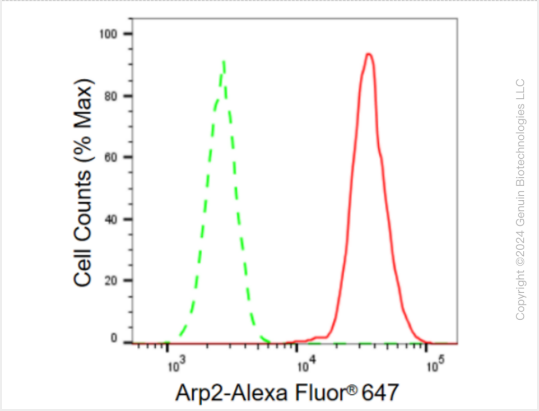
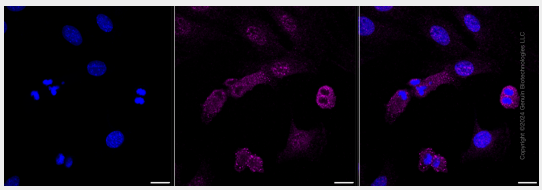


Western blotting analysis using anti-Arp2 antibody (Cat#AGI2297). Arp2 expression in wild type (WT) and Arp2 shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with anti-Arp2 antibody (Cat#AGI2297, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of Arp2 expression in C2C12 cells using Arp2 antibody (Cat#AGI2297, 1:2,000). Green, isotype control; red, Arp2.



Immunocytochemical staining of C2C12 cells with Arp2 antibody (Cat#AGI2297, 1:1,000). Nuclei were stained blue with DAPI; Arp2 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 µm.