

**ACTR3**  
**Purified Mouse Monoclonal Antibody**  
**Catalog # AO2714a**

**Specification**

**ACTR3 - Product Information**

Application **E, WB, FCM, IHC**  
 Primary Accession [P61158](#)  
 Reactivity **Human, Mouse**  
 Host **Mouse**  
 Clonality **Monoclonal**  
 Isotype **Mouse IgG1**  
 Calculated MW **47.4kDa KDa**

**Immunogen**

Purified recombinant fragment of human ACTR3 (AA: 287-418) expressed in E. Coli.

**Formulation**

Purified antibody in PBS with 0.05% sodium azide

**ACTR3 - Additional Information**

**Gene ID 10096**

**Other Names**

ARP3

**Dilution**

E~~ 1/10000  
 WB~~ 1/500 - 1/2000  
 FCM~~1/200 - 1/400  
 IHC~~ 1/200 - 1/1000

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

ACTR3 is for research use only and not for use in diagnostic or therapeutic procedures.

**ACTR3 - Protein Information**

**Name ACTR3**

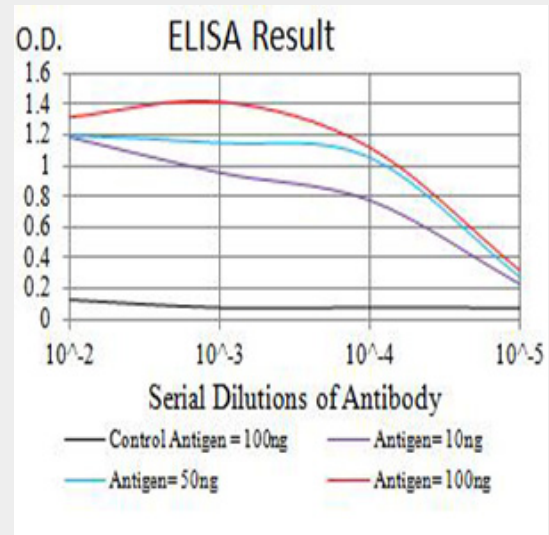


Figure 1: Black line: Control Antigen (100 ng); Purple line: Antigen (10ng); Blue line: Antigen (50 ng); Red line: Antigen (100 ng)

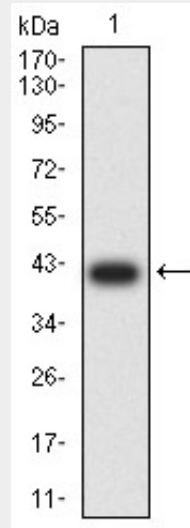


Figure 2: Western blot analysis using ACTR3 mAb against human ACTR3 (AA: 287-418) recombinant protein. (Expected MW is 41.1 kDa)

## 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)

## ACTR3 - Protocols

Provided below are standard protocols that you

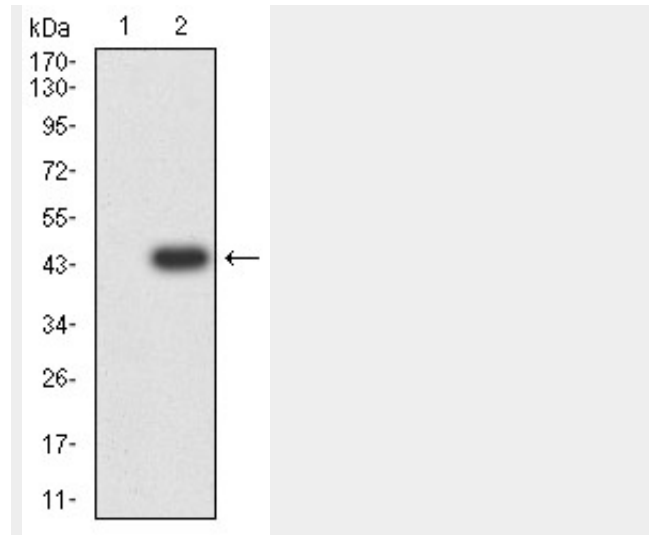


Figure 3:Western blot analysis using ACTR3 mAb against HEK293 (1) and ACTR3 (AA: 287-418)-hlgGfc transfected HEK293 (2) cell lysate.

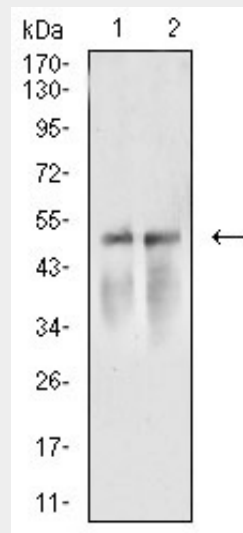


Figure 6:Western blot analysis using ACTR3 mouse mAb against NIH/3T3 (1) and A549 (2) cell lysate.

may find useful for product applications.

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

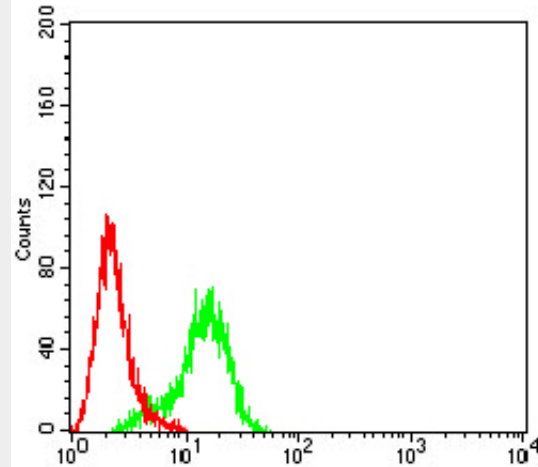


Figure 4:Flow cytometric analysis of Hela cells using ACTR3 mouse mAb (green) and negative control (red).

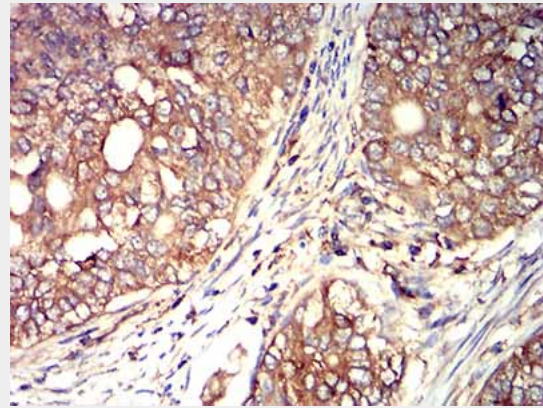


Figure 5:Immunohistochemical analysis of paraffin-embedded cervical cancer tissues using ACTR3 mouse mAb with DAB staining.

#### ACTR3 - References

- 1.J Immunol. 2014 Jul 1;193(1):150-60.
- 2.J Cell Biol. 2013 Dec 23;203(6):907-16.