

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

ACTR3 - Product Information

Application	WB, IHC, ICC, E
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

WB~~ 1/500 - 1/2000

IHC~~ 1/200 - 1/1000

ICC~~N/A

E~~ 1/10000

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

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: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). Plays a role in ciliogenesis (PubMed:20393563).

Cellular Location

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

ACTR3 - 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](#)

ACTR3 - Images

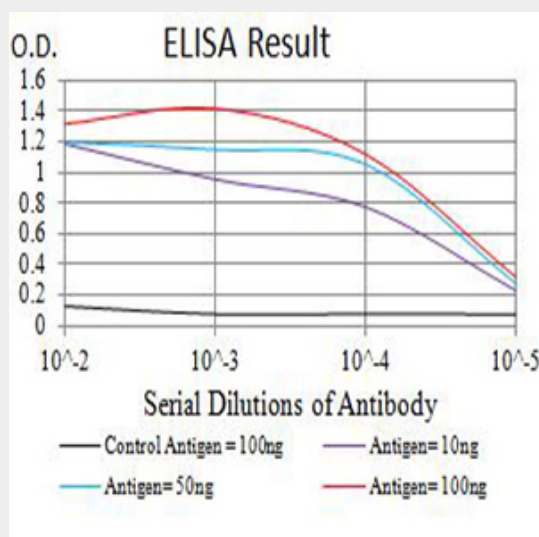


Figure 1: Black line: Control Antigen (100 ng); Purple line: Antigen (10ng); Blue line: Antigen (50 ng); Red line: Antigen (100 ng)

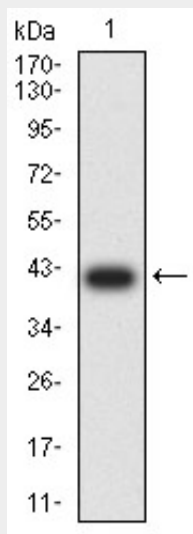


Figure 2: Western blot analysis using ACTR3 mAb against human ACTR3 (AA: 287-418) recombinant protein. (Expected MW is 41.1 kDa)

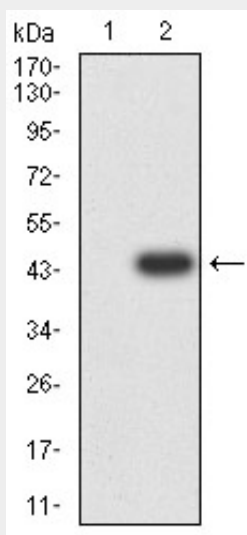


Figure 3: Western blot analysis using ACTR3 mAb against HEK293 (1) and ACTR3 (AA: 287-418)-hlgGfc transfected HEK293 (2) cell lysate.

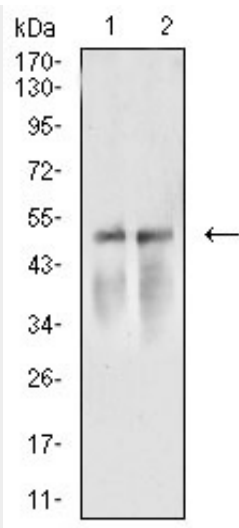


Figure 6: Western blot analysis using ACTR3 mouse mAb against NIH/3T3 (1) and A549 (2) cell lysate.

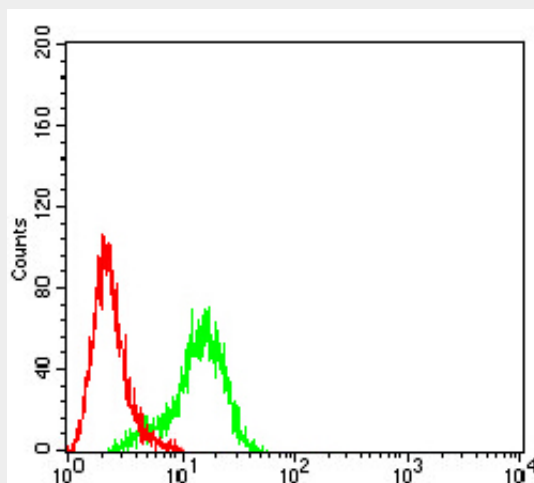


Figure 4: Flow cytometric analysis of HeLa cells using ACTR3 mouse mAb (green) and negative control (red).

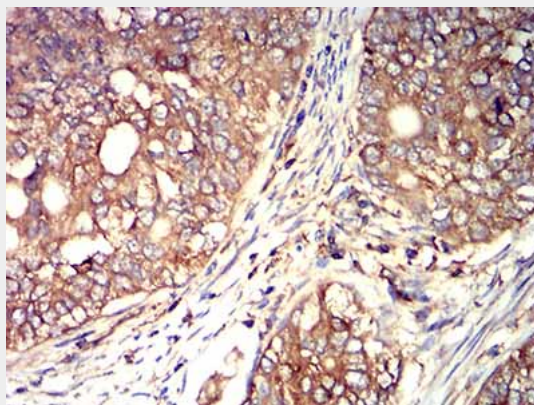


Figure 5: Immunohistochemical analysis of paraffin-embedded cervical cancer tissues using ACTR3 mouse mAb with DAB staining.

ACTR3 - References

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