

# ACTR3

Purified Mouse Monoclonal Antibody  
Catalog # AO2715a

## Product Information

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<b>Application</b>	WB, IHC, ICC, E
<b>Primary Accession</b>	<a href="#">P61158</a>
<b>Reactivity</b>	Human, Mouse
<b>Host</b>	Mouse
<b>Clonality</b>	Monoclonal
<b>Clone Names</b>	3G2G1
<b>Isotype</b>	Mouse IgG1
<b>Calculated MW</b>	47371
<b>Immunogen</b>	Purified recombinant fragment of human ACTR3 (AA: 287-418) expressed in E. Coli.
<b>Formulation</b>	Purified antibody in PBS with 0.05% sodium azide

## Additional Information

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<b>Gene ID</b>	10096
<b>Other Names</b>	ARP3
<b>Dilution</b>	WB~~ 1/500 - 1/2000 IHC~~1/200 - 1/1000 ICC~~N/A E~~ 1/10000
<b>Storage</b>	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.
<b>Precautions</b>	ACTR3 is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	ACTR3
<b>Synonyms</b>	ARP3
<b>Function</b>	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="#">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="#">9000076</a> ). Seems to contact the pointed end of the daughter actin filament (PubMed: <a href="#">9000076</a> ). In podocytes, required for the formation of lamellipodia downstream of AVIL and PLCE1 regulation (PubMed: <a href="#">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:[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 MEFV in large specks (pyroptosomes) (PubMed:19109554)

## References

1.J Immunol. 2014 Jul 1;193(1):150-60.2.J Cell Biol. 2013 Dec 23;203(6):907-16.

## Images

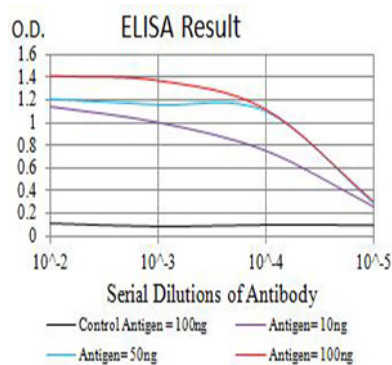


Figure 1:Black line: Control Antigen (100 ng);Purple line: Antigen (10ng); Blue line: Antigen (50 ng); Red line:Antigen (100 ng)

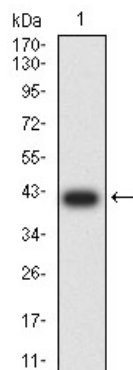


Figure 2:Western blot analysis using ACTR3 mAb against human ACTR3 (AA: 287-418) recombinant protein. (Expected MW is 41.1 kDa)

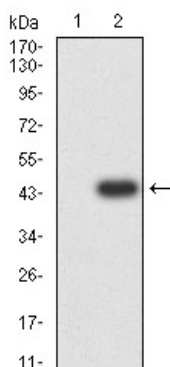


Figure 3:Western blot analysis using ACTR3 mAb against HEK293 (1) and ACTR3 (AA: 287-418)-hIgGfC transfected HEK293 (2) cell lysate.

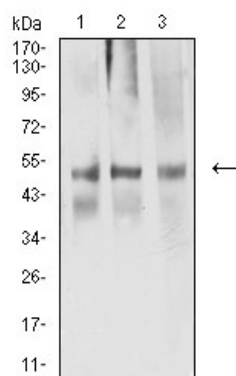


Figure 5: Western blot analysis using ACTR3 mouse mAb against NIH/3T3 (1), A549 (2), and CHO3D10 (2) cell lysate.

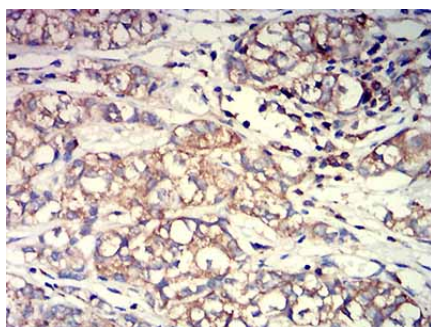


Figure 5: Immunohistochemical analysis of paraffin-embedded bladder cancer tissues using ACTR3 mouse mAb with DAB staining.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.