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ACTR3

Purified Mouse Monoclonal Antibody
Catalog # AO2714a

Product Information

Application	WB, IHC, ICC, E
Primary Accession	P61158
Reactivity	Human, Mouse
Host	Mouse
Clonality	Monoclonal
Clone Names	3G2C9
Isotype	Mouse IgG1
Calculated MW	47371
Immunogen	Purified recombinant fragment of human ACTR3 (AA: 287-418) expressed in E. Coli.
Formulation	Purified antibody in PBS with 0.05% sodium azide

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.

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 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

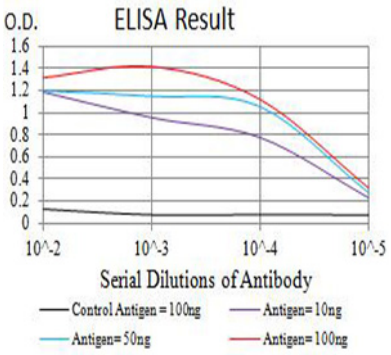

Figure 1:Black line: Control Antigen (100 ng);Purple line: Antigen (10ng); Blue line: Antigen (50 ng); Red line:Antigen (100 ng)

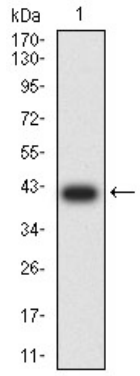

Figure 2:Western blot analysis using ACTR3 mAb against human ACTR3 (AA: 287-418) recombinant protein. (Expected MW is 41.1 kDa)

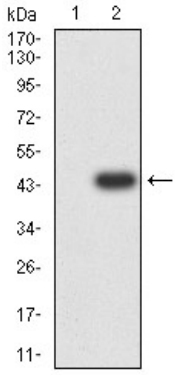

Figure 3:Western blot analysis using ACTR3 mAb against HEK293 (1) and ACTR3 (AA: 287-418)-hIgGFc transfected HEK293 (2) cell lysate.

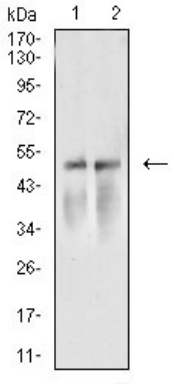

Figure 6:Western blot analysis using ACTR3 mouse mAb against NIH/3T3 (1) and A549 (2) cell lysate.

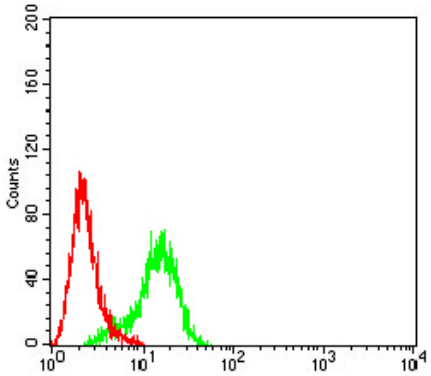

Figure 4:Flow cytometric analysis of Hela cells using ACTR3 mouse mAb (green) and negative control (red).

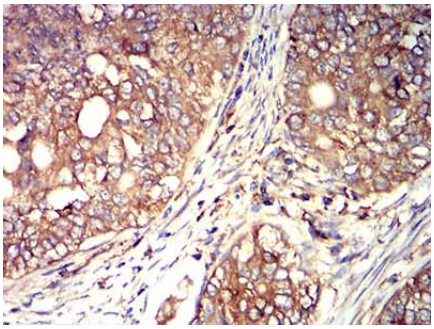

Figure 5:Immunohistochemical analysis of paraffin-embedded cervical cancer tissues using ACTR3 mouse mAb with DAB staining.