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ACTR2 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6533c

Product Information

Application	IHC-P, FC, WB, E
Primary Accession	P61160
Other Accession	Q5M7U6, P61161, P53488, A7MB62, Q7ZTP2
Reactivity	Human, Rat, Mouse
Predicted	Xenopus, Bovine, Chicken, Mouse, Rat, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	44761
Antigen Region	191-219

Additional Information

Gene ID	10097
Other Names	Actin-related protein 2, Actin-like protein 2, ACTR2, ARP2
Target/Specificity	This ACTR2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 191-219 amino acids from the Central region of human ACTR2.
Dilution	IHC-P~~1:100~500 FC~~1:10~50 WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	ACTR2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

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

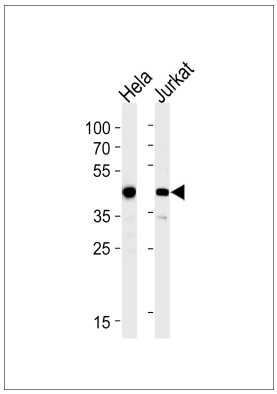
Background

ACTR2 is known to be a major constituent of the ARP2/3 complex. This complex is located at the cell surface and is essential to cell shape and motility through lamellipodial actin assembly and protrusion.

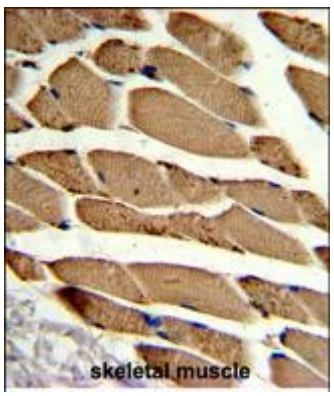
References

Gonzalez,V., Cell Host Microbe 5 (3), 259-272 (2009)
Weisswange,I., Nature 458 (7234), 87-91 (2009)

Images

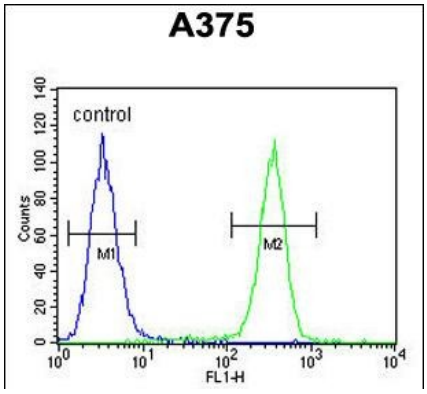


ACTR2 Antibody (Center) (Cat. #AP6533c) western blot analysis in Hela,Jurkat cell line lysates (35ug/lane).This demonstrates the ACTR2 antibody detected the ACTR2 protein (arrow).



Formalin-fixed and paraffin-embedded human skeletal muscle reacted with ACTR2 Antibody (Center), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

ACTR2 Antibody (Center) (Cat. #AP6533c) flow cytometric analysis of A375 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated



goat-anti-rabbit secondary antibodies were used for the analysis.

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