

ACTR2 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP6533B

Product Information

Application	IHC-P, FC, WB, E
Primary Accession	P61160
Other Accession	Q5M7U6 , P61161 , P53488 , A7MB62 , Q7ZXV3 , Q56A35 , Q7ZTP2 , Q7SXW6
Reactivity	Human, Rat, Mouse
Predicted	Zebrafish, Xenopus, Bovine, Chicken, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB19693
Calculated MW	44761
Antigen Region	323-352

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 323-352 amino acids from the C-terminal 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 (C-term) 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

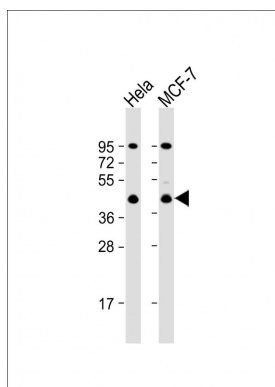
ACTR2 is known to be a major constituent of the ARP2/3 complex. This complex is located at the cell surface and is essential to cell shape and motility through lamellipodial actin assembly and protrusion.

References

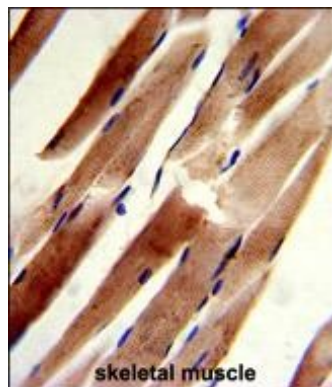
Gonzalez,V., Cell Host Microbe 5 (3), 259-272 (2009)

Weisswange,I., Nature 458 (7234), 87-91 (2009)

Images

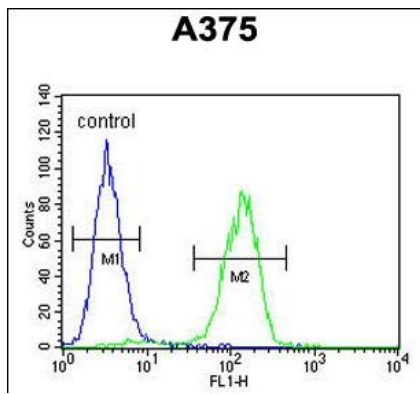


All lanes : Anti-ACTR2 Antibody (C-term) at 1:1000 dilution
Lane 1: HeLa whole cell lysate Lane 2: MCF-7 whole cell lysate
Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 45 kDa
Blocking/Dilution buffer: 5% NFDM/TBST.



Formalin-fixed and paraffin-embedded human skeletal muscle reacted with ACTR2 Antibody (C-term), 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 (C-term) (Cat. #AP6533b) 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'.