

ACTR3 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP2891b

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	P61158
Other Accession	Q4V7C7 , Q99JY9 , Q90WD0 , P61157
Reactivity	Human
Predicted	Bovine, Chicken, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB20506
Calculated MW	47371
Antigen Region	380-407

Additional Information

Gene ID	10096
Other Names	Actin-related protein 3, Actin-like protein 3, ACTR3, ARP3
Target/Specificity	This ACTR3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 380-407 amino acids from the C-terminal region of human ACTR3.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 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	ACTR3 Antibody (C-term) 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](#))

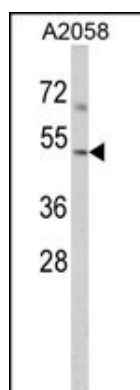
Background

ACTR3 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.

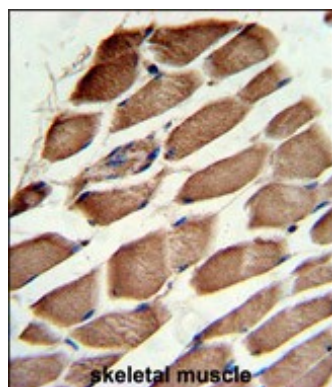
References

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

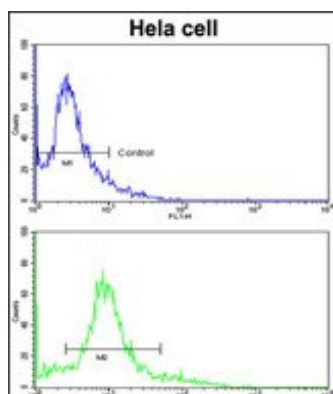
Images



Western blot analysis of ACTR3 Antibody (C-term) (Cat. #AP2891b) in A2058 cell line lysates (35ug/lane). ACTR3 (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human skeletal muscle reacted with ACTR3 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.



Flow cytometric analysis of hela cells using ACTR3 Antibody (C-term)(bottom histogram) compared to a negative control cell (top 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'.