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# ACTR2 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6533B

## Product Information

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|---|---|
| **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, Canine, Rabbit |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | Rabbit IgG |
| **Clone Names** | RB19693 |
| **Calculated MW** | 44761 |
| **Antigen Region** | 323-352 |

## Additional Information

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| **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

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| **Name** | ACTR2 |
| **Synonyms** | ARP2 |

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| **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 |

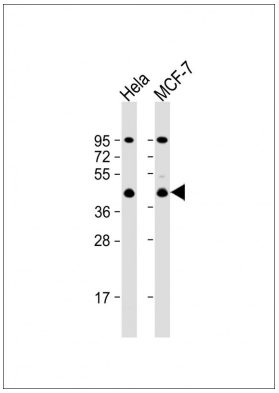
## Background

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.

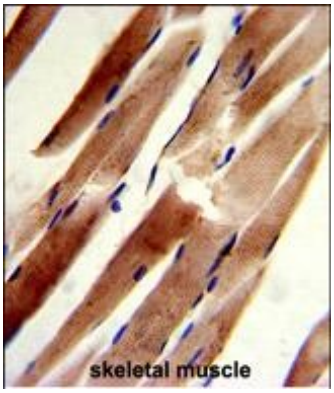
## References

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

## Images

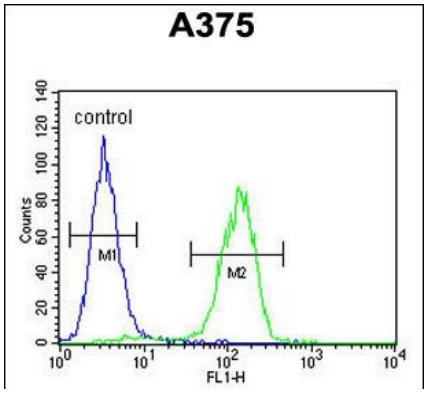



All lanes : Anti-ACTR2 Antibody (C-term) at 1:1000 dilution Lane 1: Hela whole cell lysate Lane 2: MCF-7 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 45 kDa Blocking/Dilution buffer: 5% NFDM/TBST.




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'.