

ACTR2 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP6533c

Specification

ACTR2 Antibody (Center) - Product Information

Application WB, FC, IHC-P,E

Primary Accession P61160

Other Accession <u>Q5M7U6</u>, <u>P61161</u>, <u>P53488</u>, <u>A7MB62</u>, <u>Q7ZTP2</u>

Reactivity Human

Predicted Xenopus, Bovine, Chicken, Mouse, Rat

Host Rabbit
Clonality Polyclonal
Isotype Rabbit IgG
Calculated MW 44761
Antigen Region 191-219

ACTR2 Antibody (Center) - 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

WB~~1:1000 FC~~1:10~50 IHC-P~~1:50~100

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.

ACTR2 Antibody (Center) - 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

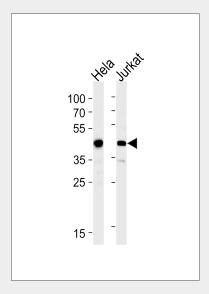
Cytoplasm, cytoskeleton. Cell projection. Nucleus

ACTR2 Antibody (Center) - Protocols

Provided below are standard protocols that you may find useful for product applications.

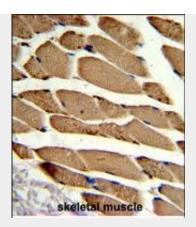
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

ACTR2 Antibody (Center) - Images

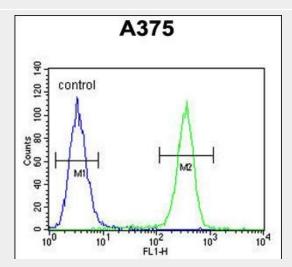


ACTR2 Antibody (Center) (Cat.# AP6533c) western blot analysis in Hela, Jurkat cell line lysates (35ug/lane). This demonstrates the ACTR2 antibody detected the ACTR2 protein (arrow).





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.

ACTR2 Antibody (Center) - 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.

ACTR2 Antibody (Center) - References

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