

**ACTR3 Antibody (Center) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP2891c****Specification**

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**ACTR3 Antibody (Center) Blocking Peptide - Product Information**Primary Accession [P61158](#)**ACTR3 Antibody (Center) Blocking Peptide - Additional Information****Gene ID** 10096**Other Names**

Actin-related protein 3, Actin-like protein 3, ACTR3, ARP3

**Target/Specificity**

The synthetic peptide sequence used to generate the antibody [AP2891c](/products/AP2891c) was selected from the Center region of human ACTR3. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**ACTR3 Antibody (Center) Blocking Peptide - 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](http://www.uniprot.org/citations/9000076)). The Arp2/3 complex mediates the formation of branched actin networks in the cytoplasm, providing the force for cell motility (PubMed: [9000076](http://www.uniprot.org/citations/9000076)). Seems to contact the pointed end of the daughter actin filament (PubMed: [9000076](http://www.uniprot.org/citations/9000076)). In podocytes, required for the formation of lamellipodia downstream of AVIL and PLCE1 regulation (PubMed: [29058690](http://www.uniprot.org/citations/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:<a href="http://www.uniprot.org/citations/17220302" target="\_blank">17220302</a>, PubMed:<a href="http://www.uniprot.org/citations/29925947" target="\_blank">29925947</a>). 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:<a href="http://www.uniprot.org/citations/29925947" target="\_blank">29925947</a>). Plays a role in ciliogenesis (PubMed:<a href="http://www.uniprot.org/citations/20393563" target="\_blank">20393563</a>).

**Cellular Location**

Cytoplasm, cytoskeleton. Cell projection. Nucleus. Note=In pre- apoptotic cells, colocalizes with MEKV in large specks (pyroptosomes) (PubMed:19109554)

**ACTR3 Antibody (Center) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

**ACTR3 Antibody (Center) Blocking Peptide - Images****ACTR3 Antibody (Center) Blocking Peptide - 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.

**ACTR3 Antibody (Center) Blocking Peptide - References**

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