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Anti-Arpc1b/p41-Arc (C-terminal region) Antibody

Catalog # AN1642

Product Information

Application	WB, ICC, IP
Primary Accession	O15143
Host	Rabbit
Clonality	Rabbit Polyclonal
Isotype	IgG
Calculated MW	40950

Additional Information

Gene ID	10095
Other Names	Arc41, p41, Arpc1b
Target/Specificity	Cellular morphology, adhesion, and motility occur through dynamic reorganization of actin-based superstructures. Actin-binding proteins are critical for regulating actin polymerization and superstructure formation. The Arp2/3 complex is an actin polymerization-inducing complex that includes Arp2, Arp3, p41-Arc, p34-Arc, p21-Arc, p20-Arc, and p16-Arc. Several nucleation promoting factors, such as WASP and coronin, regulate the activity of the Arp2/3 complex. In addition, the Arp2/3 complex may be regulated by phosphorylation of specific subunits in the complex. p41-Arc (Arpc1b) subunit Arpc1 has two isoforms in humans, Arpc1a and Arpc1b. PAK1 can bind and phosphorylate Thr-21 in Arpc1b leading to growth factor-stimulated cell motility. In addition, Arpc1b colocalizes with γ-tubulin at centrosomes and stimulates Aurora A activity. Aurora A phosphorylates Arpc1b on Thr-21 and a nonphosphorylatable Arpc1b mutant cannot activate Aurora A kinase and centrosome amplification. Thus, Arpc1b has roles in cytoskeletal dynamics during cell motility and mitosis, and these activities are regulated by phosphorylation at Thr-21
Dilution	WB~~1:1000 ICC~~N/A IP~~N/A
Format	Antigen Affinity Purified
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Anti-Arpc1b/p41-Arc (C-terminal region) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.
Shipping	Blue Ice

Background

Cellular morphology, adhesion, and motility occur through dynamic reorganization of actin-based

superstructures. Actin-binding proteins are critical for regulating actin polymerization and superstructure formation. The Arp2/3 complex is an actin polymerization-inducing complex that includes Arp2, Arp3, p41-Arc, p34-Arc, p21-Arc, p20-Arc, and p16-Arc. Several nucleation promoting factors, such as WASP and coronin, regulate the activity of the Arp2/3 complex. In addition, the Arp2/3 complex may be regulated by phosphorylation of specific subunits in the complex. p41-Arc (Arpc1b) subunit Arpc1 has two isoforms in humans, Arpc1a and Arpc1b. PAK1 can bind and phosphorylate Thr-21 in Arpc1b leading to growth factor-stimulated cell motility. In addition, Arpc1b colocalizes with γ-tubulin at centrosomes and stimulates Aurora A activity. Aurora A phosphorylates Arpc1b on Thr-21 and a nonphosphorylatable Arpc1b mutant cannot activate Aurora A kinase and centrosome amplification. Thus, Arpc1b has roles in cytoskeletal dynamics during cell motility and mitosis, and these activities are regulated by phosphorylation at Thr-21