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# ARPC1B Rabbit pAb

Catalog # AP98999

## Product Information

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| **Application** | WB, IHC-P, IHC-F, IF, E |
| **Primary Accession** | O15143 |
| **Other Accession** | O15143 |
| **Predicted** | Rat, Pig, Human, Mouse, Chicken, Goat, Sheep |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 40950 |
| **Physical State** | Liquid |
| **Immunogen** | KLH conjugated synthetic peptide derived from human ARPC1B |
| **Epitope Specificity** | 101-200/372 |
| **Isotype** | IgG |
| **Purity** | affinity purified by Protein A |
| **Buffer** | 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. |
| **SIMILARITY** | Belongs to the WD repeat ARPC1 family. Contains 6 WD repeats. |
| **SUBUNIT** | Component of the Arp2/3 complex composed of ARP2, ARP3, ARPC1B/p41-ARC, ARPC2/p34-ARC, ARPC3/p21-ARC, ARPC4/p20-ARC and ARPC5/p16-ARC. |
| **Important Note** | This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. |
| **Background Descriptions** | This gene encodes one of seven subunits of the human Arp2/3 protein complex. This subunit is a member of the SOP2 family of proteins and is most similar to the protein encoded by gene ARPC1A. The similarity between these two proteins suggests that they both may function as p41 subunit of the human Arp2/3 complex that has been implicated in the control of actin polymerization in cells. It is possible that the p41 subunit is involved in assembling and maintaining the structure of the Arp2/3 complex. Multiple versions of the p41 subunit may adapt the functions of the complex to different cell types or developmental stages. This protein also has a role in centrosomal homeostasis by being an activator and substrate of the Aurora A kinase. [provided by RefSeq, Mar 2011] |

## Additional Information

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| **Gene ID** | 10095 |
| **Other Names** | ARC41; IMD71; PLTEID; p40-ARC; p41-ARC; 41kDa; L72; SOP2Hs; ARC1B_HUMAN; ARPC1B; Arp2/3 complex 41 kDa subunit; ARC1B_MOUSE; actin related protein 2/3 complex subunit 1B; actin related protein 2/3 complex, subunit 1B (41 kD); actin related protein 2/3 complex subunit 1B, 41kDa; ARP2/3 protein complex subunit p41; actin related protein 2/3 complex, subunit 1A (41 kD) |
| **Dilution** | WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100- |

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| | 500,ELISA=1:5000-10000 |
| **Storage** | Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C. |

## Protein Information

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| **Name** | ARPC1B ( HGNC:704) |
| **Synonyms** | ARC41 |
| **Function** | Component of the Arp2/3 complex, a multiprotein complex that mediates actin polymerization upon stimulation by nucleation-promoting factor (NPF) (PubMed:11741539, PubMed:9230079). The Arp2/3 complex mediates the formation of branched actin networks in the cytoplasm, providing the force for cell motility (PubMed:11741539, PubMed:9230079). 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: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. Nucleus |

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