

Active Recombinant Porcine Arp2/3 Protein Complex

Cat. No. ARPC2-1601P **Lot. No.** (See product label)

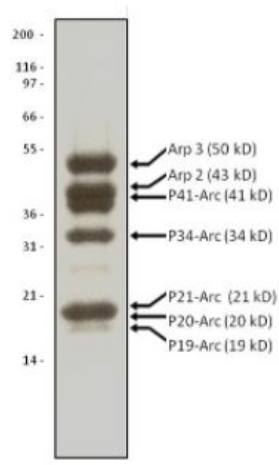
SPECIFICATION

Product Overview	The Arp2/3 complex (Actin-Related Proteins) has been purified from porcine brain and consists of seven evolutionarily conserved protein subunits.
Species	Porcine
Source	Porcine Brain
Description	Arp2/3 complex is a seven-subunit protein that plays a major role in the regulation of the actin cytoskeleton and is found in most in eukaryotic cells . Two of its subunits, the Actin-Related Proteins ARP2 and ARP3 closely resemble the structure of monomeric actin and serve as nucleation sites for new actin filaments. The complex binds to the sides of existing ("mother") filaments and initiates growth of a new ("daughter") filament at a distinctive 70 degree angle from the mother. Branched actin networks are created as a result of this nucleation of new filaments. The Arp2/3 complex (molecular weight of 224 kDa) is a key regulator of branched actin filament nucleation and is important for cell locomotion, phagocytosis and intracellular motility.
Form	A white lyophilized powder.
Bio-activity	In conjunction with the VCA domain of WASP, an Arp2/3 activator, it was shown to stimulate actin polymerization by 20-fold compared to the control without ARPC2-1601P. This indicates Arp 2/3 specificity for actin polymerization induction .
Molecular Mass	224 kDa

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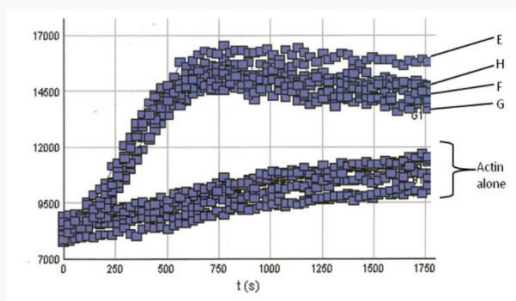
Purity	Protein purity is determined by scanning densitometry of Coomassie Blue stained protein on a 4-20% polyacrylamide gel. Arp2/3 protein complex is determined to be 90% pure.
Usage	Characterization of actin polymerization factors. Formation of branched actin filaments. Antibody standard for Western blot analysis.
Stability	it is stable for 6 months.
Storage	Store lyophilized product desiccated (<10% humidity) at 4°C.
Reconstitution	Resuspend the protein complex to 5 mg/ml with 10 µl of cold Milli-Q water. When resuspended the complex is in the following buffer: 20 mM Tris pH 7.5, 25 mM KCl, 1 mM MgCl ₂ , 0.5 mM EDTA, 0.1 mM ATP, 1.0% (v/v) dextran and 5% (v/v) sucrose. Further dilution of Arp2/3 should be made in the following buffer: 20 mM Tris pH 7.5, 25 mM KCl, 1 mM MgCl ₂ and 1 mM DTT (Note: add DTT to the buffer immediately prior to use).
SDS-PAGE	

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