Recombinant ARPC3 protein (His tag)

Catalog Number	544074
Synonyms	Arp2/3 complex 21 kDa subunit; p21-ARC
Species	Human
Expression System	E. coli
Accession	O15145
Molecular Weight	Predictes a molecular mass of 22.07 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 22 kDa band.

Product Information

Sequence Region	2-178
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 2-178 aa (O15145) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human Actin-related protein 2/3 complex subunit 3 (Arp2/3 complex 21 kDa subunit, p21-ARC) fragment (residues 2-178) is a highly stable and soluble protein unit designed for structural and biochemical studies. This fragment supports research into actin polymerization mechanisms, cell motility, and DNA repair pathways. The full-length Actin-related protein 2/3 complex subunit 3, encoded by the ARPC3 gene, is a key component of the Arp2/3 complex. This multiprotein complex mediates actin polymerization upon stimulation by nucleation-promoting factors, enabling the formation of branched actin networks in the cytoplasm that drive cell motility. Beyond its cytoplasmic role, the Arp2/3 complex also facilitates nuclear actin polymerization, which regulates gene transcription and promotes homologous recombination repair of DNA double-strand breaks by enhancing the motility of damaged DNA sites. The protein localizes to the cytoplasm, cytoskeleton, cell projections, and the nucleus, underscoring its multifaceted involvement in cellular structure and genomic stability.