# Recombinant ARP19 protein (His tag)

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| **Catalog Number** | 544722 |
| **Synonyms** | ARPP-19 |
| **Species** | Human |
| **Expression System** | E. coli |
| **Accession** | P56211 |
| **Molecular Weight** | Predictes a molecular mass of 13.85 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 15 kDa band. |

## Product Information

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| **Sequence Region** | 2-112 |
| **Form** | Lyophilized powder |
| **Formulation** | Lyophilized from sterile PBS, pH 7.4 |
| **Purity** | >85%, 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 2-112 aa (P56211) were fused with 6His tag. |

## Storage & Handling

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| **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.<br>Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise. |

## Description

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| **Description** | Recombinant Human ARPP-19 (2-112) is a highly purified protein fragment of cAMP-regulated phosphoprotein 19, specifically engineered for structural and biochemical studies. This 111-amino acid fragment represents a stable, soluble domain ideal for investigating ARPP-19's critical role as a protein phosphatase 2A inhibitor during mitosis.<br>ARPP-19 (cAMP-regulated phosphoprotein 19) is a key regulatory protein that functions as a specific inhibitor of protein phosphatase 2A (PP2A) during mitosis. Its inhibitory activity is enhanced upon phosphorylation, and when phosphorylated at Ser-62 during mitosis, it specifically interacts with PPP2R2D (PR55-delta) to inhibit PP2A activity. This inhibition is essential for maintaining high cyclin-B1-CDK1 activity during M phase, playing a crucial role in proper cell division. ARPP-19 may also indirectly enhance GAP-43 expression and is primarily localized in the cytoplasm, where it exerts its regulatory functions in cell cycle control. |