# Recombinant NPHP1 protein (His tag)

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| **Catalog Number** | 531450 |
| **Synonyms** | Nephronophthisis homolog |
| **Species** | Caenorhabditis elegans |
| **Expression System** | E. coli |
| **Accession** | O17972 |
| **Gene ID** | 174643 |
| **Molecular Weight** | Predictes a molecular mass of 44.19 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 44 kDa band. |

## Product Information

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| **Sequence Region** | 317-682 |
| **Form** | Lyophilized powder |
| **Formulation** | Lyophilized from sterile PBS, pH 7.4 |
| **Purity** | >88%, 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 317-682 aa (O17972) 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 Nephrocystin-1-like protein (Nephronophthisis homolog) fragment (residues 317-682) from Caenorhabditis elegans, engineered for stability and solubility. This fragment supports research into ciliary function and neuronal development, ideal for structural and biochemical studies.<br>The full-length Nephrocystin-1-like protein, encoded by the nphp-1 gene in C. elegans, plays a critical role in the extension of dendrites from phasmid ciliated sensory neurons and may be necessary for initial cilium assembly. These functions highlight its importance in ciliary biology and neuronal connectivity, with implications for understanding ciliopathies. The selected fragment (317-682) is a stable, soluble unit optimized for experimental applications, enabling detailed mechanistic investigations. |