# Recombinant DKC1 protein (His tag)

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| **Catalog Number** | 541829 |
| **Synonyms** | CBF5 homolog; Dyskerin; Nopp140-associated protein of 57 kDa; Nucleolar protein NAP57; Nucleolar protein family A member 4; snoRNP protein DKC1 |
| **Species** | Human |
| **Expression System** | E. coli |
| **Accession** | O60832 |
| **Molecular Weight** | Predictes a molecular mass of 48.69 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 49 kDa band. |

## Product Information

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| **Sequence Region** | 2-417 |
| **Form** | Lyophilized powder |
| **Formulation** | Lyophilized from sterile PBS, pH 7.4 |
| **Purity** | >86%, 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 2-417 aa (O60832) 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 H/ACA ribonucleoprotein complex subunit DKC1 (Dyskerin) fragment (residues 2-417) encompassing the PUA domain. This high-purity protein is ideal for studying pseudouridylation mechanisms, ribosome biogenesis, and telomere maintenance in human cellular processes.<br>DKC1 is the catalytic subunit of the H/ACA small nucleolar ribonucleoprotein complex, responsible for pseudouridylation of rRNA—a key RNA modification stabilizing ribosomal RNA conformation. It plays essential roles in ribosome biogenesis and telomere maintenance by facilitating correct processing of the telomerase RNA component TERC. Full-length DKC1 localizes predominantly to the nucleolus and Cajal bodies, while isoform 3 is cytoplasmic. The provided fragment (2-417) includes the critical PUA domain, enabling focused investigation into domain-specific functions without interference from other regions. |