# Recombinant CCNY protein (His tag)

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| **Catalog Number** | 543174 |
| **Synonyms** | Cyc-Y; Cyclin box protein 1; Cyclin fold protein 1; cyclin-X |
| **Species** | Human |
| **Expression System** | E. coli |
| **Accession** | Q8ND76 |
| **Molecular Weight** | Predictes a molecular mass of 36.32 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 38 kDa band. |

## Product Information

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| **Sequence Region** | 43-341 |
| **Form** | Lyophilized powder |
| **Formulation** | Lyophilized from sterile PBS, pH 7.4 |
| **Purity** | >89%, 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 43-341 aa (Q8ND76) 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 Cyclin-Y (Cyc-Y) Fragment (aa 43-341) – a high-purity protein tool designed for studying the Cyclin N-terminal domain's role in cell cycle regulation and Wnt signaling pathway activation. This 299-amino acid fragment provides researchers with a specific domain-focused reagent for investigating CDK interactions and membrane-associated signaling mechanisms.<br>Cyclin-Y (CCNY) serves as a positive regulatory subunit for cyclin-dependent kinases CDK14/PFTK1 and CDK16, functioning as a crucial cell-cycle regulator of the Wnt signaling pathway during G2/M phase. The protein recruits CDK14/PFTK1 to the plasma membrane where it promotes phosphorylation of LRP6, leading to Wnt pathway activation, and similarly recruits CDK16 to membrane locations. Full-length Cyclin-Y is localized to the cell membrane via lipid-anchoring on the cytoplasmic side, while isoform 3 exhibits nuclear localization and may play a role in MYC-mediated transcription activation. These membrane-associated functions make Cyclin-Y an important regulator of cell cycle progression and signaling transduction pathways. |