# Recombinant CDK10 protein (His tag)

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| **Catalog Number** | 547334 |
| **Synonyms** | Cell division protein kinase 10; Serine/threonine-protein kinase PISSLRE |
| **Species** | Human |
| **Expression System** | E. coli |
| **Accession** | Q15131 |
| **Molecular Weight** | Predictes a molecular mass of 42.69 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 43 kDa band. |

## Product Information

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| **Sequence Region** | 1-360 |
| **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 1-360 aa (Q15131) 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** | Introducing the recombinant human Cyclin-dependent kinase 10 (CDK10) fragment (amino acids 1-360), a high-purity protein encompassing the complete protein kinase domain. This fragment serves as an essential tool for investigating kinase activity, ETS2 transcription factor regulation, actin cytoskeleton organization, and ciliogenesis mechanisms in cellular and biochemical assays.<br>Cyclin-dependent kinase 10 (CDK10) is a serine/threonine-protein kinase that phosphorylates the transcription factor ETS2, promoting its proteasomal degradation and thereby influencing transcriptional regulation. It also plays a critical role in actin cytoskeleton organization by phosphorylating regulators like PKN2 and acts as a negative regulator of ciliogenesis through RhoA signaling modulation. CDK10 is localized to the cytoplasm, cytoskeleton, and cilium basal body, underscoring its involvement in key cellular processes such as cell division and structural dynamics. |