Recombinant CDK4 protein (His tag)

Catalog Number	533011
Synonyms	CDK4/6; Cell division protein kinase 4
Species	Caenorhabditis elegans
Expression System	E. coli
Accession	Q9XTR1
Gene ID	181472
Molecular Weight	Predictes a molecular mass of 35.29 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 35 kDa band.

Product Information

Sequence Region	115-406
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 115-406 aa (Q9XTR1) were fused with 6His tag.

Storage & Handling

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

Description

Description	Recombinant Cyclin-dependent kinase 4 homolog (CDK4/6) fragment from Caenororhabditis elegans (residues 115-406) is a high-purity, soluble protein ideal for structural studies, biochemical assays, and cell cycle research. This 292-amino acid fragment retains key functional regions, offering researchers a stable tool to investigate G1 phase progression mechanisms. Cyclin-dependent kinase 4 homolog (CDK4/6) is a serine/threonine-protein kinase that partners with cyclin D-like protein cyd-1 to drive G1 phase progression during postembryonic development. Through phosphorylation and inhibition of lin-35 and fzr-1, CDK4/6 regulates cell cycle advancement and is essential for proper gonadogenesis, where it controls asymmetric division of somatic gonadal precursor cells during sex determination. This kinase plays a fundamental role in developmental processes and cell cycle control pathways in C. elegans.