Recombinant CDK9 protein (His tag)

Catalog Number	533473
Synonyms	Cell division protein kinase 9
Species	Caenorhabditis elegans
Expression System	E. coli
Accession	Q9TVL3
Gene ID	173023
Molecular Weight	Predictes a molecular mass of 44.80 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 45 kDa band.

Product Information

Sequence Region	55-435
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 55-435 aa (Q9TVL3) 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 Probable Cyclin-Dependent Kinase 9 (CDK-9) Fragment (residues 55-435) from Caenorhabditis elegans. This 381-amino acid fragment is engineered to include the complete protein kinase domain, making it an ideal reagent for studying transcription elongation mechanisms and kinase activity in a purified system. Full-length CDK-9 is an essential cyclin-dependent kinase that partners with cyclin-T to form the positive transcription elongation factor B (P-TEFb) complex. This complex plays a critical role in transcriptional regulation by phosphorylating the C-terminal domain of RNA polymerase II and SPT-5, facilitating the transition from abortive to productive transcription elongation. CDK-9 is localized to the nucleus, where it executes its primary function in gene expression regulation. The provided fragment retains the complete kinase domain, enabling focused investigation of its catalytic activity and molecular interactions.