Recombinant CCNH protein (His tag)

Catalog Number	537815
Synonyms	MO15-associated protein; p34; p37
Species	Human
Expression System	E. coli
Accession	P51946
Molecular Weight	Predictes a molecular mass of 34.69 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 35 kDa band.

Product Information

Sequence Region	1-284
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 1-284 aa (P51946) 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 Human Cyclin-H (CCNH) fragment (residues 1-284) is a high-quality protein designed for structural and biochemical studies. This stable and soluble fragment supports research on CDK7 regulation, cell cycle control, and RNA polymerase II transcription mechanisms. Cyclin-H, encoded by the CCNH gene, functions as a regulatory subunit of the CDK-activating kinase (CAK) complex. It modulates CDK7 activity, which in turn activates cyclin-dependent kinases (CDK1, CDK2, CDK4, CDK6) via threonine phosphorylation, essential for cell cycle progression. Additionally, within the TFIIH transcription factor complex, CAK phosphorylates the C-terminal domain of RNA polymerase II, facilitating transcriptional initiation and elongation. Cyclin-H is constitutively expressed and localized to the nucleus, underscoring its dual roles in cell cycle regulation and RNA transcription.