Recombinant CDC7 protein (His tag)

Catalog Number	546403
Synonyms	CDC7-related kinase; HsCdc7; huCdc7
Species	Human
Expression System	E. coli
Accession	O00311
Molecular Weight	Predictes a molecular mass of 22.18 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 22 kDa band.

Product Information

Sequence Region	36-215
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, 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 36-215 aa (O00311) 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	This product is a recombinant fragment of the Cell division cycle 7-related protein kinase (CDC7), specifically spanning residues 36-215. It is engineered for high solubility and stability, making it ideal for structural studies and biochemical assays focused on DNA replication initiation mechanisms. CDC7 is a key kinase in human cells that regulates the G1/S phase transition and initiation of DNA replication. It phosphorylates critical substrates such as MCM proteins and CLASPIN, which are essential for replication fork progression. The protein is localized to the nucleus, where it performs its role in cell cycle control. This fragment was selected computationally to provide a stable, soluble unit for detailed analysis, enabling researchers to explore its structural and functional properties without the complexities of the full-length protein.