Recombinant C1D protein (His tag)

Catalog Number	547285
Synonyms	hC1D
Species	Human
Expression System	E. coli
Accession	Q13901
Molecular Weight	Predictes a molecular mass of 17.67 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 18 kDa band.

Product Information

Sequence Region	1-141
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 1-141 aa (Q13901) 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 human Nuclear nucleic acid-binding protein C1D (hC1D), encompassing amino acids 1-141. It is designed for structural and biochemical studies, offering a stable and soluble unit that facilitates research into RNA processing, DNA-dependent kinase activation, and apoptosis regulation. The full-length Nuclear nucleic acid-binding protein C1D (hC1D), encoded by the C1D gene in Homo sapiens, plays a critical role in recruiting the RNA exosome complex to pre-rRNA, mediating the 3'-5' end processing of 5.8S rRNA, potentially in conjunction with MPHOSPH6. It activates PRKDC in the presence of linear or supercoiled DNA, induces apoptosis in a p53/TP53-dependent manner, and may regulate the TRAX/TSN complex formation, while also potentiating transcriptional repression by NR1D1 and THRB. Subcellularly, hC1D localizes to the nucleus, cytoplasm, and nucleolus, with EXOSC10 required for nucleolar localization, and it colocalizes with TSNAX in the nucleus, underscoring its involvement in nucleic acid binding and cellular signaling pathways.