Recombinant CDT1 protein (His tag)

Catalog Number	541233
Synonyms	Double parked homolog; DUP
Species	Human
Expression System	E. coli
Accession	Q9H211
Molecular Weight	Predictes a molecular mass of 31.10 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 32 kDa band.

Product Information

Sequence Region	118-378
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 118-378 aa (Q9H211) 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 recombinant protein is a stable, soluble fragment (residues 118-378) of human DNA replication factor Cdt1 (DUP), a key regulator of DNA replication licensing and mitotic progression. Designed for structural and biochemical studies, this fragment provides a reliable tool for investigating mechanisms of cell cycle control and genome stability. DNA replication factor Cdt1 is essential for DNA replication and mitosis in humans. It functions as a DNA replication licensing factor by cooperating with CDC6 and the origin recognition complex (ORC) during the G1 phase to load the mini-chromosome maintenance (MCM) complex onto DNA, forming pre-replication complexes. Additionally, Cdt1 supports mitosis by promoting stable kinetochore-microtubule attachments. It localizes to the nucleus and transiently associates with kinetochores during prometaphase and metaphase. As a potential oncogene, Cdt1 is a significant target for cancer research due to its critical roles in cell cycle regulation and genome integrity.