Recombinant CDCA2 protein (His tag)

Catalog Number	538242
Synonyms	Recruits PP1 onto mitotic chromatin at anaphase protein; Repo-Man
Species	Human
Expression System	E. coli
Accession	Q69YH5
Molecular Weight	Predictes a molecular mass of 12.84 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 13 kDa band.

Product Information

Sequence Region	53-153
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 53-153 aa (Q69YH5) 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	Introducing the recombinant human Cell division cycle-associated protein 2 (Repo-Man) fragment (amino acids 53-153), a high-quality protein tool designed for investigating chromosome architecture regulation during mitosis. This stable, soluble fragment is ideal for structural studies and biochemical assays, providing researchers with a reliable reagent to explore mitotic chromatin dynamics. Cell division cycle-associated protein 2 (Repo-Man) is a critical regulator of chromosome structure during mitosis, specifically required for maintaining compact chromosome architecture through anaphase when condensin is depleted. It functions by recruiting phosphatase PP1-gamma subunit (PPP1CC) to chromatin at anaphase onset, enabling targeted dephosphorylation of key substrates. The protein localizes to the nucleus throughout interphase stages (G1, S, G2) and becomes diffusely distributed during M phase following nuclear membrane breakdown. It shows faint accumulation on metaphase chromatin and prominent accumulation on anaphase chromatin, where it plays its essential role in coordinating the dephosphorylation events necessary for proper mitotic progression. This fragment represents a computationally selected stable region optimized for experimental applications.