Recombinant CCNA2 protein (His tag)

Catalog Number	546822
Synonyms	Cyclin-A; Cyclin A
Species	Human
Expression System	E. coli
Accession	P20248
Molecular Weight	Predictes a molecular mass of 31.25 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 31 kDa band.

Product Information

Sequence Region	175-432
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 175-432 aa (P20248) 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-A2 (CCNA2) Fragment (aa 175-432) - A high-quality, soluble protein fragment ideal for studying cell cycle regulation mechanisms. This 258-amino acid recombinant fragment has been computationally optimized for stability and solubility, making it perfect for structural studies and biochemical assays investigating G1/S and G2/M phase transitions. Cyclin-A2 is a crucial regulatory protein that controls both the G1/S and G2/M transition phases of the cell cycle. It functions by forming specific serine/threonine protein kinase holoenzyme complexes with cyclin-dependent protein kinases CDK1 or CDK2, where the cyclin subunit confers substrate specificity to these complexes. The protein differentially interacts with and activates CDK1 and CDK2 throughout the cell cycle. Cyclin-A2 exhibits dynamic subcellular localization, being exclusively nuclear during interphase, while detected in both the nucleus and cytoplasm at prophase. It can also localize to the cytoplasm when associated with SCAPER, highlighting its complex regulatory mechanisms in cell cycle progression.